Chorus

BRINGING NEW ZEALAND
BETTER BROADBAND

Submission in response to **MBIE's Telecommunications Act Review** Options Paper

2 September 2016

"The choice is ours: Fibre is not an alternative, but an essential network technology needed to meet the ever-increasing demands, both mobile and fixed, of all homes and businesses today and into the future.

The choice before us seems simple: do we want to be in the future game or not? Do we want to empower the few or the many? Are we to be an inclusive or exclusive society?

New Zealand has the right network strategy, the right plan and is well progressed toward completion. The UK needs to follow this example and seriously consider fibre or risk jeopardising its economic, cultural and social standing in the world."[1]

[1] Peter Cochrane: Former CTO at BT, a consultant engineer, technologist, futurist, entrepreneur and adviser to industry and governments with over 40 years' experience in industry and academia. *(http://www.computerweekly.com/opinion/New-Zealand-fibre-benefits-as-copper-choked-UK-risks-digital-exclusion?platform=hootsuite).*

- Kiwis are increasingly reliant on high quality, resilient, fixed line broadband infrastructure.
- Ongoing investment and nationally averaged pricing supports the inclusion of all kiwis.
- Consumers want better broadband services at fair prices and ongoing investment that supports that.
- Investors expect recovery of investment, incentives to innovate and a fair return through a stable and predictable regulatory model.
- Volatility in regulated prices and revenues got us here. There are no legacy concerns about investment levels, discrimination or a non-transparent level playing field for retail service providers (RSPs).
- A building block model (BBM) philosophy is one of limited competition, fitting with the structurally separated market, supporting more investment, fair prices and fair returns.

- An internally coherent BBM revenue cap framework with a wash up account can bring price, quality and investment into one conversation. This form of control takes care of cost recovery and ensures no excess returns.
- Market specific dynamics mean a transition to a BBM is not as straight forward compared to other industries.
- Regulated suppliers need clear and predictable rules and appropriate flexibility to work in these market dynamics.
- Policy makers should direct the regulator on the policy outcomes and how to deal with the change from one regime to another.
- Consumers and investors need confidence in the credibility of the transition to the new framework by being able to predict that there will no price or revenue shocks.
- Opening up a wide range of starting valuations – in the $billions – risks driving a divisive and volatile starting round, a wide range of unpredictable potential outcomes and timing challenges.
- Smoothing cannot correct errors in the initial settings of the transition to a new framework.
- A **"line in the sand" RAB philosophy is well known** to transition to a BBM without shocks and the regulator should be directed on this.
- Products involve policy choices. A differentiated product range within the BBM framework does not require products to be individually cost based.
- The wholesale TSO and the open access deeds should be simplified and updated.
- Given ongoing investment, market dynamics, significant countervailing buyer power, timing issues and that, in principle, all regulated suppliers should have the same regime applied, the backstop option should be favoured.
- A backstop option + price capped anchor products is an alternative option to assist continuity in the transition and timing issues and/or if national consistency is desired for voice, entry level and basic broadband.
- The ability to turn off copper in UFB areas under appropriate notice must be enabled when it makes sense to do so in the next 5 to 10 years.

We support the framework proposed in principle and in particular support:

- √ Utility style regulation.
- √ Motivating more investment to increase the reach, quality and resilience of open access fixed line broadband.
- √ Fair prices for consumers and fair returns for investors.
- √ A revenue cap with wash up form of control.
- √ Price, quality and investment in one coherent framework.
- √ Revenue sufficiency and financeability for regulated suppliers.
- √ No price or revenue shocks when transitioning to a new regime.
- √ A combined copper and fibre RAB.
- √ Simplicity over complexity.
- √ The proposed technology neutral anchor "access" products + averaging.
- √ Open access, published reference offers and a level playing field for all RSPs.
- √ Mechanisms and accountability on the regulator to remove regulation promptly if the competitive landscape changes (for example in a geographic area).
- √ Removal of legacy copper and sub loop unbundling, which supports enhancement of broadband over copper outside UFB areas.
- √ That promoting competing infrastructure competition is no longer the priority.
- √ Ensuring there are no barriers to turn off copper in UFB areas under appropriate notice.
- √ Clearly communicated policy outcomes.
- √ Legislated (primary or secondary) direction to the regulator on how to deal with the change from one regime to another and to support the outcomes.
- √ A backstop option *or* a backstop option + initial anchor products as a more timely option.
- √ Specified key requirements for anchor products so the regulated supplier offers up the detail for approval.

We have concerns about:

- × "Blind auditions" for the starting RAB which sets up high contention, divisive debates and high unpredictability.
- × Market specific factors that mean the change to, and operation of, a BBM at 2020 presents heightened risks of regulatory error.
- × Smoothing cannot correct errors in the initial settings of the new framework. It is generally used in moving from one period to another within a regime.
- × Signals that suggest the BBM construct (of fair prices and a regulated return) could be undermined, e.g. by "discounting" already prudent & efficient UFB, RBI and NSI capex.
- × Unorthodox asymmetric wash up proposals.
- × Not modernising the wholesale TSO; obligations must transfer to LFCs.
- × Not consolidating and updating open access deeds.
- × The need to re-open all product policy within the BBM if cost oriented pricing is super-imposed on top.
- × Recognising HFC competition for LFCs but not for Chorus.
- × Timing challenges for regulatory implementation and market readiness by 2020.
- × Retaining the legacy regime for non-access services.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Sustainable, efficient, inclusive broadband

We support the Government's long term vision for:

> *"A vibrant communications environment that provides high quality and affordable services for all New Zealanders, and enables our economy to grow, innovate or compete in a dynamic global environment."*

Everyone is increasingly reliant on high quality resilient broadband. The societal and economic risks of digital exclusion are also evident. No one should be left behind.

> *"Our interests are ultimately the consumers of New Zealand, and ensuring they have access to Ultra-Fast Broadband. We believe that is a piece of infrastructure that will have the capacity to turn and change the dial when it comes to New Zealanders' ability to compete in the world." "... if New Zealand gets left behind in the Internet race and New Zealanders don't have access to Ultra-Fast Broadband that will have very significant long term implications for this country." (John Key 2013)*

New Zealand is recognised for being ambitious and bold. The initial ultra-fast broadband (UFB) fibre to the home initiative − which will see UFB rolled out to 75% of the country —is well on track. There are promises to extend UFB into more New Zealand communities. The existence of wholesale only providers and the roll out of fibre is helping consumers throw off the shackles of constrained broadband. Unlimited data is becoming the norm. Motivating ongoing investment in this digital highway is critical.

The initial rural broadband initiative (RBI) is complete. For our part, this saw an extension of the fibre to the cabinet programme and over 100,000 rural lines improved.

We are focused on improving the customer[2] experience. We also continue to invest in other broadband upgrades where business cases can be made. These include cabinet upgrades, increasing capacity to meet exponential bandwidth, substantial systems transition and taking on more responsibility for improving the fibre installation experience for customers. [3]

A Diffraction Analysis report in June 2016 finds that structural separation supports increased fibre and challenges regulatory models to de-risk long term investment.[4] In the introduction to the report they say:

> *There is however a trade-off in order to achieve this much prized goal [of broad FTTH coverage]: not only must the structural model of the market be altered, but the regulatory model itself must be changed to better align with the expectations of long term infrastructure investors: moving away from inherently short term price regulation to longer term asset based regulatory models must be part and parcel of these changes."*[5]

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[2] We favour and use the term "customer" in Chorus. We use the term "consumer" in this submission to match references in the Options Paper to "consumer" or "end-user".

[3] https://www.nzx.com/files/attachments/242445.pdf, slide 22 in particular.

[4] http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2794850.

[5] http://www.diffractionanalysis.com/services/white-papers/2016/06/structural-remedies-solve-rural-broadband-issue.

We now know that if kiwis are supplied with high quality broadband, their demand for speed and data increases. A range of independent research demonstrates the economic and societal benefits from that increased uptake and usage of better broadband.[6]

Building, upgrading, maintaining and operating broadband infrastructure is a long term investment and ongoing programme of work. It's labour and capital intensive. It's affected by real world geographies, climates, regulations and markets. It's generally accepted that network replication is unlikely. And it's also likely inefficient, only occurs in some high density areas and/or comes with trade-offs that affect business cases.

Regulating broadband as the 4th utility

Utility style regulation is commonly applied to essential services.

A Building Block Model (BBM) framework starts from a philosophy of limited competition and fits with a structurally separated market. Rather than focusing on build-buy signals for infrastructure competition, a BBM focuses on the interests of consumers and investors.

- Investors are incentivised to continue investing in better broadband through a clear line of sight to a fair return on and of capital in a reasonable period; and
- Consumers are protected from both excess pricing/returns as well as the harm from infrastructure and services that are not sufficiently high quality, resilient and secure as a result of underinvestment.

This alignment between investor and consumer interests is key to the BBM construct.

To put it another way, a BBM presents the opportunity for a holistic approach to price, quality and investment that ensures there isn't a "beer budget" and a "champagne appetite", or vice versa. We also welcome the opportunity to lead and benefit from constructive customer engagement within a BBM model.

One of the strengths of a BBM is that it can deal with change in a way that is fair to all parties. If we don't limit our thinking, there is the ability to deal with change and put in place a regulatory regime that will stand the test of time[7].

The present market structure

The demerger of Chorus and the creation of local fibre companies in 2011 is a permanent structural remedy to the discrimination and investment concerns of the former vertically integrated Telecom. We're in a complex market environment making large long term investments.

[6] See for example: Tech NZ "From Tech sector to digital nation" at http://www.epageflip.net/i/693432-economic-impact-study-report-ebook/0 *and* Sapere Research on the "Economic value of the take-up of ultra-fast broadband in New Zealand" http://www.srgexpert.com/publications/economic-value-ufb-uptake/.

[7] See Professor Littlechild's paper previously submitted and available at https://www.chorus.co.nz/file/71400/External-Report---Littlechild---TSLRIC-BBM-and-Customer-Engagement.pdf. It is not the case that the Part 4 Commerce Act approach is the only way forward.

Around 100 retail service providers can now access wholesale broadband services from a level playing field on the same open and transparent terms. They compete for consumers in the knowledge that Chorus and LFCs do not compete with them at retail.

While fierce competition is asserted in the retail market, and it is pleasing there has been new entry and offerings for consumers, there is material countervailing RSP power. This affects the risks and demands for regulated fixed line wholesalers and the industry generally:

- Three RSPs have over 90% of the retail broadband market. They are consistently the most dominant voice in all policy, industry and regulatory proceedings.
- Two of those RSPs are the dominant vertically integrated nationwide mobile operators. They also have fixed line infrastructure – with particular focuses in urban areas. Vodafone has an international parent with a market cap of £61 billion. Spark's market cap is around 5 times ours. These two RSPs are likely key influencers in nationwide retail marketing at any time.
- The third RSP, while much smaller in comparison, has an Australian parent with a market cap of a similar size to Spark.
- Other RSPs together make up a single digit percentage of the market.

There are other market specific factors that create risk and complexity:

- There are pockets of alternative networks including Vodafone's HFC network in Wellington, Kapiti and Christchurch and fixed wireless.
- While pockets of alternative fixed infrastructure typically serve tens rather than hundreds of thousands of consumers, exactly how this may play out in the medium and longer term is unknown.
- Spark and Vodafone are increasingly asserting a focus on alternative fixed line infrastructure. They have the scale to consider investment in the higher density, often lower cost areas. They are themselves essentially unregulated, are vertically integrated and not subject to any open access, wholesaling or transparency requirements in fixed or mobile markets. This presents particular challenges in a policy context that favours geographic averaging and supporting the motivation of ongoing investment in essential open access services.
- Mobile networks and services, while complementary, do present substitution risks.
- Chorus and LFCs are, in contrast, prohibited from retailing under (overly) complex business line restrictions to retain the market structure determined in 2011.

The above factors also reinforce the need for the framework to support:

- The role of wholesalers in increasing information, education and transparency for consumers about broadband, upgrades, outages and changes – rather than this being left solely to RSPs.
- Innovative and improved wholesale open access offerings being introduced quickly. RSPs who do not invest, or are not agile, should not be able to delay the introduction of new offers.

- The regulator having mechanisms and accountability to remove regulation promptly if the competitive landscape changes (for example in a geographic area).
- Heightened care on balancing transparency and disclosures with commercially sensitive information.

The ghost of regulatory intervention past

To understand where we are going, it is important to recognise where we have come from.

New Zealand was one of the last countries in the world to introduce regulation. It was one of the first countries to embark on operational separation. And, we are one of the few to lead with full structural separation.

Our journey has seen many benefits. Upgraded fixed line broadband infrastructure is happening beyond the main centres into more regions and rural New Zealand. There is more to do.

New Zealand is on a fundamentally different path to the UK – a country that is often criticised for its lack of fibre to the home investment, its vertically integrated market structure, lack of broadband ambition and duplicative investment focused on main centres with rural forgotten.

> *"Fibre in New Zealand is providing first-class broadband and mobile coverage all around the country via the Ultra-Fast Broadband and Rural Broadband Initiative programmes.*
>
> *I discovered a simple, consistent policy of replacing fibre-to-the node (FTTN), the equivalent of the fibre-to-the-cabinet BT is deploying today, with fibre-to-the-premises (FTTP) to three-quarters of the population. The network is open to everyone, and FTTN is being driven deep into rural areas with a view to FTTP in the future. The fibre is then used to enable complementary mobile infill coverage in rural areas along the way.*
>
> *The economic opportunity and advantage being afforded to cities, towns, communities and individuals by these networks cannot be overstated…*
>
> *The 2, 2.5, 3 and 4G standards promised a fixed mobile utopia just over the horizon – just one more step, and then we won't need all this fibre – but they never delivered!*
>
> *This has led to a necessary fixation on the "peak promise" rather than the sustained throughput, which is the key measure we should look at, with latency close behind. None of these technologies delivered on their promise and, as a result, the majority of people currently suffer congestion and delay. Many are disadvantaged by exclusion from services and world markets, forgetting the key philosophy behind network effects – we need everyone with great connectivity and connected to each other."*[8]

[8] "Why we can't cope without fibre for all" Dr Peter Cochrane, PC Pro magazine, 14 July 2016, page 48.

But we've seen significant complexities and confusion too – as reported in the media:

> *"Shares in Chorus, which owns the copper-based telecommunications network, have lost more than half of their value since the Commerce Commission issued a preliminary decision on what it can charge for wholesale broadband connections. …*
>
> *He [Minister English] said the decisions about copper broadband had "raised questions" about predictability…*
>
> *"When people say it's starting to look unpredictable we need to do a check because we know from the rest of the business scene that predictable policy works – it does help give people confidence to get them investing.""*[9]

AND

> *"If you think the result [on copper network pricing] was unpredictable, then that's poor policy process when the provisions went in the legislation," said [Bill] English. …"You'd think Government would have enough regulatory experience to understand the implications of that sort of provision, and I don't think they did," …*[10]
>
> *"It'll take five to seven years for Chorus to wash through the minds of offshore investors," he predicts.*[11]

Markets don't like unpredictability. This week following our annual results:

> *"There's further weakness, on light volume, but there are concerns about what's going to happen in 2020 now," McIntyre said. "There's a review on fibre pricing, and the share price had run particularly hard up into that result. It was within guided expectations but a number have awoken to the review on fibre pricing and how that would impact on Chorus, and markets don't like uncertainty, so you've seen some money taken off the top."*[12]

The recent past has significantly impacted the regulator, consumers, investors, the government and the industry alike. We cannot afford a repeat.

We did not get where we are today due to concerns over excessive profits and pricing by regulated suppliers. We are not here due to discrimination concerns or a lack of new product releases. We got here due to concerns over the volatility in revenues and in the prices of regulated suppliers engaged in large long term investments in essential infrastructure and services.

Remnants of legacy thinking and legacy instruments must not remain in the future framework.

[9] http://www.stuff.co.nz/business/industries/9493844/English-puts-regulations-on-watch

[10] http://www.stuff.co.nz/dominion-post/business/9930222/The-name-may-say-Chorus-but-its-singing-alone

[11] See above, n10.

[12] http://www.scoop.co.nz/stories/BU1608/S01017/market-close-nz-shares-rise.htm.

The spirit of a post 2020 future

The discussion document is a welcome progression from last year's consultation. But, it does not go far enough.

At the recent workshop run by officials there were many requests from industry and consumer groups for clear decisions on and communication of policy choices.

The Government made regulatory commitments to UFB investors of regulatory stability, transparency and predictability to give businesses confidence to make long life investments (s19A Government Policy Statement, 2011). Any new framework should follow through – especially in the change to a new framework. Ensuring there is no revenue volatility caused by the transition of the regulatory model is the responsibility of policy makers. Smoothing cannot correct for errors at establishment of initial settings.

This is not a situation of establishing a regulatory regime with no historic context. Reasonable expectations were created for investors and consumers alike around the completion of the copper pricing processes in December and UFB pricing.

Re-valuations and debates about windfall gains or losses to RSPs or regulated suppliers do little for consumers or investors. Investors and shareholders have reasonable expectations that they will not be deprived of value simply because there is yet another set of complex regulatory proceedings. Consumers have reasonable expectations that they will continue to receive improving broadband at fair prices.

Design of the BBM

Scope of the BBM

Wholesale "access" services (to the first data switch) comprise around 90% of our business. They're all controlled today through regulator determinations (copper) or by contract with Crown Fibre Holdings following competitive tender (UFB fibre).

We're concerned at the proposal for a separate regulatory model (the current Telecommunications Act) to apply for the remaining ~10% of non-access services. Given shared assets, applying a legacy regime and a BBM regime in tandem would likely increase rather than decrease complexity. If the regulator's new market study on backhaul could move more quickly, its findings could be considered with this review.

Revenue cap with wash up form of control

A revenue cap with wash up is the right starting point. It is consistent with Transpower's model, NBN Co in Australia and trends in both New Zealand and Australian regimes.

A revenue cap deals with fair return on and of investment and protects consumers from excessive returns or pricing. This regulatory compact, supports ongoing investment and must not be diluted by other aspects of the model such as the proposed anchor product/price cap proposals or the asymmetric wash-up proposal.

A single RAB

We agree with a combined regulated asset base (RAB). It reduces debate including cost allocation and importantly supports the transition occurring. This needs to be directed in legislation.

Starting RAB

The starting RAB is a critical input to determining the maximum allowable revenue. It's therefore critical to revenue volatility risks and ongoing investment and quality aims.

We support in legislative (primary or secondary) guidance to ensure that the change in regime is well directed, predictable and does not produce market shocks. Government Policy Statements (and tweaks to purpose statements) are not sufficient – as history shows.

It is the policy maker's choice, and responsibility, to determine whether we all start in the new regime - "mugging free" or not (a term used and discussed by Professor Yarrow, an independent expert advising the Commerce Commission during the development of the Part 4 Input Methodologies[13]).

What is a fair outcome is not a narrow regulatory economic question delegated to an independent regulator. Regulatory economics does not provide a single unambiguous method for setting the initial RAB and the options paper seems to reinforce that. Context and policy direction is appropriate for policy makers to give.

The options paper suggests the regulator must lead fulsome proceedings on all potential methodological choices and the detail within them. Copper will therefore be re-valued again along with expected opportunistic debates about the prudency and costs of UFB and RBI build programmes made in partnership with, and under the scrutiny of, the Crown – and, in our case, real world market disciplines.

Let's not forget our very recent past. Copper pricing at benchmarked prices at $34 saw tightly rationed cash management. Discretionary investment was deferred. No dividends were paid to the shareholders supporting broadband ambitions. Spark and Vodafone argued that the price should be materially decreased further to $21 to $24. The price finally determined in December was $41 – around $5 lower than the price at demerger - with a valuation of $7.5 billion. Even if we'd skipped benchmarking, a price drop of around 10% remains significant.

While a replacement cost approach was used, it was very highly optimised. Analysys Mason publicly presented replacement cost modelling of the copper network, excluding UFB investment at a value of $16 billion.[14] An optimised version of the same model showed a value of $13 billion.[15] This valuation was more in line with Telecom's prior regulatory accounting work and with a combined ODV/ODRC estimate for electricity lines businesses in New Zealand.

All modelling during the regulatory proceedings to price copper access services also consistently showed that the majority of costs were in the civils/layer 1.

Unless the regulator is empowered and directed to start from prices at 2020, or with the regulatory valuation for copper plus actual UFB and other costs, a full process of submission

[13] Transcript of Commerce Commission's IMs conference; 17 September 2009; page 351.

[14] https://www.chorus.co.nz/file/69155/205054.pdf.

[15] https://www.chorus.co.nz/file/69157/204917.pdf.

and debates will be realised. This does not support the stated goals of minimising revenue volatility and price shocks nor ongoing investment and confidence in New Zealand's regulatory regime.

If the regulator is required to work through a range of potential valuation methodologies, then the following should be provided for in legislation:

First, the regulator must be directed as to outcomes. Whatever approach to valuation is used, the outcome must recognise the regulatory commitment, and provide for financeability and revenue sufficiency for the regulated supplier. There should not be "blind auditions" in the sense that a formula is applied with little attention to outcomes for the regulated supplier and the real world market as occurred with the UBA benchmarking process.

Second, the regulator must recognise and act in accordance with the Government's network build initiatives and recognise the substantial transition underway. In particular:

- All UFB, RBI and non-standard installation capital is deemed prudent and efficiently incurred and is to be included in the RAB such that there is a regulated return on and of that capital;
- Financing for UFB occurred to enable fibre to the home roll out ahead of demand that would not have otherwise occurred. The competitive tender process was based on this funding being available, the price caps set under the UFB contract and other terms of the build arrangements. The form of financing does not change that capex that has been incurred. Clear guidance is needed to remove any potential debate;
- Copper assets should stay in the RAB and receive a normal return. We are not like Australia where Telstra received compensation;
- Clear legislative recognition that copper and fibre will co-exist. It was always contemplated the copper and fibre would exist in parallel under a market led migration; and
- The high degree of shared assets across copper and fibre must also be recognised.

Absent clear guidance, and given the market specific context, a cookie cutter approach from Part 4 of the Commerce Act may be tempting. That experience is valuable but the market specific context here is very different and will need to be carefully considered with a fresh mind. The regulator may find itself having to work through the full range of issues from the bottom up –keeping a strong eye to outcomes is fundamental.

Revisiting four years of copper regulatory work and competitively tendered fibre prices could be minimised by directing and empowering the regulator to use a line in the sand starting approach. Our research shows that such an approach is the most commonly used internationally. It was used to determine the value of 30 regulated assets in Australia.

Even then, there is still work to do. But this can support the regulator with a start point and the regulator can be given meaningful legislative direction as to outcomes that actually do minimise revenue volatility and price shocks.

The case for improving and stabilising the conditions for future investment protects and delivers to consumers. If the policy is to deliver on this – but not cause material change from current outcomes in the market – a line in the sand approach is required. If that approach is not clear this will be taken as a signal that material revenue stability and price shocks are not ruled out. We should move forward from where we are.

By comparison, the alternative valuation methodologies that the options paper raises each present significant challenges:

- Depreciated actual cost (DAC) has been rarely used. One of the key reasons being data challenges such as those present for copper given privatisation and structural separation. In Australia, while DAC was used by the ACCC for Telstra's copper, adjustments were made that resulted in pricing levels in the market – drawing a line in the sand.
- Starting again to pursue an ODRC valuation is information intensive as it was during the copper regulatory proceedings. The regulator will face further submissions on re-valuation losses and gains, which would again trigger substantial industry debate.

Cost of capital

We expect that the cost of capital under BBM regulation will be higher than that applied in the copper pricing process, where the Commission noted the difference in approach to WACC uplift between TSLIRC and BBM regimes. Our WACC under a BBM approach needs to recognise the higher risks associated with the investment in new fibre network infrastructure.

Major capital approvals

If a pre-approval process for major capex approvals is included, it should ensure that:

- There is sufficient ability, incentives and flexibility to invest in non-major capital activities in an unfettered way;
- There are short, definite timelines that do not present an opportunity for actual or potential competitors to delay investment ; and
- The regulator is clear that it cannot decline investment in favour of alternative infrastructure as that would distort the regulatory compact. The regulated should be no more harshly treated than the unregulated.

Asymmetric wash up

It unclear why this has been proposed given that Transpower does not face this and we understand it has been recently rejected for other NZ utilities. NBN Co's revenue cap model also does not have this approach. It would operate as a strong disincentive to investment – return is capped, but is entirely at risk.

Quality IM

Some of the things the options paper proposes to require through input methodologies for network and service quality are issues we'd expect to be more appropriately included in product descriptions. A quality IM could cover global quality factors (like accuracy of repair time estimates). But we wouldn't expect it to cover service-specific matters (like response times for business services which differ based on the level of service taken).

Translation to products and prices

A revenue cap in principle takes care of cost recovery and a fair return. Individual products do not therefore need to be individually "cost based".

The approach to products requires a policy choice as set out in previous submissions.

We support a differentiated bitstream range that:

- Enables attractive and lower priced services as well as higher specified and higher priced services;
- Supports continuity for consumers who have a range of services today (because they are not individually cost oriented);
- Supports innovation and increasing uptake of better broadband (the usage of which is associated with increased economic and societal benefits); and
- Like the retail TSO today, has CPI price paths.

Having an economic "anchor" supports flexibility for the rest of a differentiated range of non-anchor services and the potential to achieve the allowable revenue. Non-anchor products are constrained by the revenue cap, the economic anchor, countervailing RSP power and market dynamics.

A provision akin to sections 63 and 78 of the Telecommunications Act should apply to all services and pricing within the BBM model.

Fibre unbundling is a policy choice

We already offer unbundled P2P fibre and will offer a commercial unbundled GPON fibre product at 2020 if that continues to be required.

There will be additional costs associated with unbundling which will need to be recovered.

Unbundled GPON cannot operate as an anchor – a product that economically anchors a differentiated range. A cost oriented price will require a specific pricing approach and a fundamental review of product policy in the round if introduced. Given this, a recommendation to the Minister might be appropriate before introduction.

No cost-benefit analysis for cost oriented unbundling has been done. As unbundling requires scale for the economic cases to work (just as in the copper environment), it can't be assumed that unbundling would lead to positive industry-wide outcomes – in fact, we expect that only one or two of the large RSPs will consider potential unbundling. As with copper unbundling, it's likely to occur in some areas of the country only and with a view to potential cost advantages over other RSPs rather than service innovation.

Implementation options and transitional arrangements

Without policy guidance in legislation on the outcomes and narrowing the debates, there is too much asked of the regulator. Even then, we are not confident that it can all be done well in advance of 2020.

The market also needs time to implement any changes - we cannot act in reliance on preliminary views or drafts.

Input methodologies and information disclosure design - as they have been done under Part 4 - are big exercises for everyone. While the Part 4 experience is valuable, this sector must be understood properly and its complexities factored in. Individual product determinations (or a price or a change) individually take around two years.[16]

In principle, all regulated suppliers should have the same regime applied – the "backstop option" (airport model). This would go some way to mitigating the burden on the regulator and the timing issues. And it does not prevent a "full BBM" approach at a later date which remains a strong incentive.

A third option that has more chance of implementation in time is a "backstop + anchor product" option. This could also be applied to any regulated supplier.

A framework for this approach would see specified key requirements for the initial anchor products prescribed in legislation. The regulated supplier would be required to offer up the detail (in a deed or undertaking) for approval - after carrying out consultation with key industry stakeholders. The approver's role is to check that the specified key requirements have been met and that consultation has been carried out. Much shorter regulatory timeframes can be achieved. Input methodologies and information disclosure remain as a check on each regulated supplier with full BBM implementation in reserve.

The anchor products – which are about continuity, availability, migration and no shocks - are a prime candidate for this type of approach. Existing terms can be leveraged and transferred with appropriate amendments. No cost modelling is required. This regulatory approach has NZ and overseas precedent - in transitioning from one regime to another, and as a more expedient way of achieving service offerings in lieu of full regulator led instruments – and they have delivered on time and in full.

Clear direction can be given that prices for anchor products should start with those at 2020 with annual CPI price paths. CPI is well understood in utility regulation and in line with expectations. This approach supports no price shocks for consumers, no revenue shocks for regulated suppliers as well as ongoing investment for consumers.

If anchor products are set in a deed this is also a good opportunity to converge anchor products with TSO and open access obligations to have one source of regulatory commitment. Otherwise, the wholesale TSO deed needs to at least catch up with the current market structure and new framework, and the three open access deeds should be converged and updated.

Provision for transitional measures are needed in the legislation because of the real risks that the regulator cannot do what is asked of it in time. Absent anything else, we would offer existing UBA and UFB fibre products (which are similar but not the same as anchor product proposals) and extrapolate the 2020 price paths through to 2025.

[16] InternetNZ's submission to the Commerce Commission on the Vodafone/Sky merger dated 15 August 2016 provides a good overview of these processes: https://internetnz.nz/content/vodafone-sky-clearance-application-submission.

PART A: MARKET CONTEXT

The path to the present

1 In 2011, New Zealand did away with the traditional vertically integrated telecommunications incumbent that had dominated the provision of retail services to New Zealanders since privatisation.

2 Historically, the perception was that the incumbent had failed to invest adequately and drive broadband uptake and that it was a reluctant wholesaler. A new model that addressed these concerns - structurally separated open access wholesalers and the award of UFB contracts to Chorus and three other local fibre companies (LFCs) – was created at demerger. That structure was deliberately chosen to support large long term upgrades to the underlying wholesale communications infrastructure, thereby promoting fibre as the long term fixed-line telecommunications infrastructure, with open access wholesale services being made available to support active competition at the retail level.

3 Despite the upheaval the industry has experienced since demerger, the country is making exciting and undeniable progress as a world leader with our fibre to the home infrastructure.

4 We're now 57% of the way through the UFB rollout and about 640,000 homes and businesses are in reach of our UFB network. Fibre connections on our network have exceeded 180,000 and continue to grow rapidly, with about 12,000 connections completed in June 2016. Consumers are upgrading from 30Mbps to 100Mbps, 200 Mbps and more – more than 50% of our mass market fibre connections are now over 100Mbps.

5 We agree with the options paper (and the 2013 and 2015 consultation papers) that now the open access, wholesale market settings are right to deliver the fibre future, what is needed to complete the puzzle is a regulatory regime that is consistent with the new market structure and that supports the high investment in generational upgrades driven by the Government's decision that New Zealand should embrace fibre to the home.

6 Our wholesale broadband services are our core business. It's therefore essential we ensure increasing confidence in customer experience and service quality.

7 We are focused on improving the customer experience and we are taking an increasingly active role on this, including through education and information. We delivered the previous fibre to the node programme, have delivered on the first rural broadband initiative and we are on track to complete the lion's share of the fibre to the home programme by 2020. We've released new fibre products that have supported increased fibre uptake as well as copper improvements to keep up with increasing bandwidth demand as a stepping stone to fibre. There's a lot more to do to increase the reach and resilience of better broadband and we need to attract investment to do it.

Our industry today

8 There are important market specific factors in our environment that must be taken into account in designing regulatory settings for fixed line telecommunications markets. These factors also increase the risks of getting things wrong, particularly with the change involved moving from one model to another model at 2020 when a major transition is still underway.

Our industry dynamics

9 The core of our business is the nationwide network of fibre optic and copper cables connecting homes and businesses together and globally. We are undertaking the lion's share of the UFB upgrade to a large part of the country. We serve 1.8 million fixed lines in New Zealand. We have a range of wholesale broadband access products (around 90% of our products) and non-access products (such as backhaul).

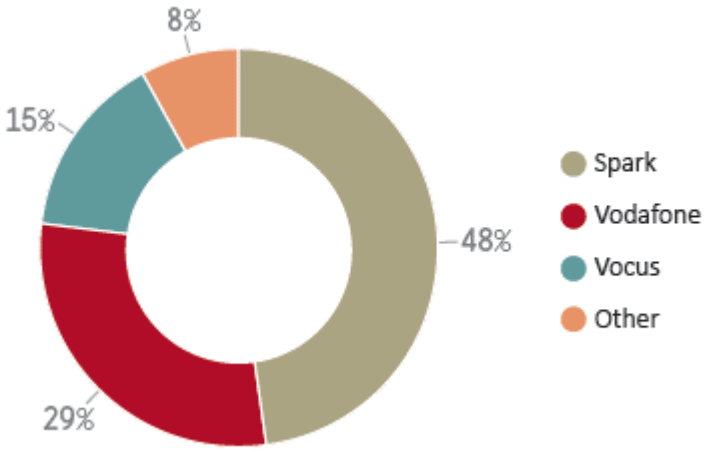
10 Three other LFCs won competitive tenders amounting to around 30% of the 75% coverage of the first UFB initiative. While fibre to the home is a superior fixed line technology, those tenders were won in the context of facing medium term competition with our regulated copper services.

11 There are also pockets of alternative networks in some geographies in New Zealand including Vodafone's HFC network in Wellington, Kapiti, Christchurch and regional fibre networks typically focused on backhaul and business markets. These typically serve tens rather than hundreds of thousands of consumers.

12 While there are around 100 RSPs, three – Spark, Vodafone and Vocus - make up more than 90% of the retail market, as demonstrated in Figure One below. Spark and Vodafone are also vertically integrated mobile providers with some fixed line infrastructure. Vodafone and Vocus have international parents. Vodafone UK's market cap is around £61bn. Vocus' parent, and Spark in NZ, both have market caps around 5 to 6 times higher than ours.

13 These factors all have impacts for the risks and demands on regulated fixed line wholesalers.

Figure One: Broadband retailer market share[17]



Chorus is a regulated national open access wholesaler

14 Our main wholesale copper broadband access products are offered nationwide under current policy settings. Each is individually specified and priced by the regulator (and has been for many years) and any changes to those products have to be made by the regulator. De facto regulatory approval is also required to introduce commercial products to supplement the regulated products, which remains an area of uncertainty.

15 Similarly, all of our UFB fibre access products are specified and priced until 2020. These were set following a competitive tender process run by Crown Fibre Holdings (CFH), with consumer products priced particularly attractively and enterprise products priced higher. Any changes to our UFB fibre products have to be approved by CFH.

16 We publish our standard form contracts (known as reference offers) for both our copper and fibre broadband products.

17 Accordingly there is no scope for excessive pricing or profits by us in the 2011 to 2020 period.

18 The real issue that arose following demerger – and must not be allowed to be repeated – is major regulatory shock to revenues of a regulated firm or price impacts for consumers. That shock has, in our case, been accompanied by an acknowledged significant and uncorrected wealth transfer from us to RSPs while the current regulatory pricing process was worked through. As the CEO of Spark said in 2012:[18]

[17] Source: Commerce Commission, Annual Telecommunications Monitoring Report, 2015

[18] http://www.bloomberg.com/news/articles/2012-12-13/telecom-ceo-says-shock-new-zealand-policy-rulings-vex-investors.

"It does annoy me that we keep surprising markets in the way we have with this decision," said Moutter, who was CEO of Auckland International Airport Ltd., the nation's fourth-largest listed company, before joining Telecom in August. "It's not good for New Zealand….

"People just completely underestimate the awareness of global investors around the propensity of New Zealand government policy to keep surprising, and causing large fluctuations and market movements," said Moutter.

19 Despite the consequences of the copper pricing process, which saw some investment deferred and shareholders receiving no dividends, RBI has been successfully delivered and the initial UFB will be rolled out by 2020. Together with enhancements to our Very High Speed Digital Subscriber Line (VDSL) broadband service, these initiatives have made better broadband available to about 900,000 customers since we started in 2011.

20 About 50% of rural customers should now be able to access broadband speeds on our network of 10Mbps or better, with about 20% able to access speeds in excess of 50Mbps. The benefits of retail competition across our wholesale network footprint are also evident with uptake within our RBI areas reaching about 88%.

21 Fibre uptake has increased to 24% in our UFB areas and more than 50% of mass market connections are on a 100Mbps service or better.

22 The ghost of the copper pricing process has not restored our financial position to demerger levels and the regulatory framework that may apply from 2020 remains as yet far from clear. We are therefore continuing to take a measured approach to ongoing investment. Lack of regulatory certainty post 2020 makes it commercially challenging for us to make significant new investments, including additional UFB and RBI investment.

23 We remain in significant transition at least through to 2025, and flexibility to manage operational, financial and commercial matters is critical. Significant transitional matters include:

23.1 the continuation of reliance on shared systems with Spark as well as systems separation and new system build, both of which continue beyond 2020;

23.2 the availability of copper and fibre services in parallel consistent with the policy of a consumer led migration and that this will not be complete by 2020;

23.3 unpredictable forecasting and demand due, amongst other things, to changes in consumer needs as they embrace technological advances; and

23.4 the challenge to secure and train sufficient technicians to meet the incredible demand for fibre connections – for which improved customer experience is our top business priority.

24 We also need to future proof our network by way of ongoing investment in network infrastructure. Consumer demand and expectations of service performance and reliability will continue to grow as broadband continues to become an integral part of

daily life, and as businesses, homes and individuals become increasingly dependent on reliable broadband. Ongoing investment in network infrastructure, network electronics, IT systems, people and processes will be needed to deliver better broadband, and deliver similar reliability to that expected of a utility service.

25 Investment is also needed so we can continue to deliver higher speeds over fibre, expand fibre coverage, and improve broadband speeds and throughput in rural areas still served by copper.

26 Fibre infrastructure is future proofed, does not face the same constraints as other technologies and we can effectively and efficiently evolve and upgrade it over time. Being open access, everyone benefits from that. Investment will also be required to:

26.1 improve resilience to failures and network damage, through duplication of network elements and design of services to leverage such redundancy both within our network, and at interfaces to our customers' networks. For example, further investment in physically diverse fibre routes serving local exchanges can improve resilience against fibre cuts. Many local exchanges already have robust fibre connectivity, but some remain dependent on a single fibre route. The cost of building diversity to local exchanges is likely to be significant; and

26.2 reduce the impact of individual failures or network damage, in network, IT systems, people and process to achieve reductions in restoration times. Changes to network design and implementation can reduce the number of customers impacted by single events, by deploying additional capacity to limit the maximum number of connections served by a fibre cable, network node or equipment site. A current example is our work to increase handover connections in Auckland to reduce the potential impact of a failure at key sites.

PART B: PHILOSOPHIES AND POLICY LEADERSHIP

Including everyone in high quality digital connectivity

27 The importance of broadband and its status as a national utility is recognised in the options paper. We support the Government's long term vision for:

> "A *vibrant communications environment that provides high quality and affordable services for all New Zealanders, and enables our economy to grow, innovate or compete in a dynamic global environment*."

28 We too would like to see the inclusion of every New Zealander in better broadband – ultimately through fibre to the home which is sustainable and efficient.

29 The fundamental reliance on high quality, resilient digital connection is well evidenced and increasing. So are the societal risks of digital exclusion.

30 To keep up the pace of New Zealand's international leadership in sustainable & efficient fixed line broadband:

30.1 we agree that a BBM regulatory model best delivers on the Government's ambitions. The promotion of infrastructure competition in the fixed line network is no longer a priority and the continued need for ongoing investment in fixed line broadband is a priority;

30.2 how the BBM is designed, and the direction given for regulator implementation, will be critical to whether the Government's objectives are achieved. The fundamental premise of a moving to a BBM is that a network provider can have an expectation that efficient investments are recoverable with a fair return, in exchange for customers and consumers being certain that the provider will be constrained from earning excess profits. The regime must be designed in a way that respects that regulatory compact;

30.3 policy makers must take responsibility for key policy choices in these areas. Many important choices are matters of policy, and need to be made once and at the outset to ensure that the regime has credibility and provides certainty to the industry; and

30.4 policy makers should consider greater reliance on less intensive forms of regulation, such as enabling the regulated supplier to put up proposals against specified key requirements – for example anchor product deeds or undertakings. This can assist timeliness and avoid the complexity involved in standard terms determinations processes today whereby the regulator is asked to take responsibility for designing these in full from the big terms to the little ones.

31 There is a lot to be done to be ready by 2020. And it has to be done unless commercial or transitional arrangements are supported as the UFB contracts end. As such, ensuring that there is a pragmatic alternative to the new model available in

2020 if the new model cannot be implemented – and implemented well – in time, remains important.

The choice to move to a BBM

We support the move to utility style regulation that brings price, quality and investment into one framework. This also fits with the structurally separated open access fixed line wholesale only market structure.

Regulating broadband as an essential utility

32 We support the decision to use a BBM approach to achieve the outcomes which this review is to address: the long-term benefit of consumers, promoting the legitimate commercial interests of regulated suppliers, encouraging efficient investment and supporting innovation.[19]

33 BBM is an orthodox form of regulation that is able to incentivise investment and innovation, promote efficiency gains, and allow regulated suppliers to earn a fair return on and of capital without extracting excessive profits. An essential feature of the regulatory compact for utility regulation in New Zealand is that investors are given the opportunity to achieve a regulated return on their investments – but no more. Consumers are protected against under investment by the regulated supplier and can be confident that prices are fair.

34 As outlined in the options paper, a BBM model that combines copper and fibre supports the Government's policy choices to:

34.1 retain current geographically averaged pricing nationwide across our copper and fibre broadband access services;

34.2 increase certainty and predictability supporting further investment needed to upgrade our network in further parts of New Zealand (e.g. more regions and rural areas), increase resilience and incentivise ongoing quality and innovative offerings; and

34.3 support the consumer led transition underway with technology neutral entry level and anchor products.

Shift from a vertically integrated regulatory model

35 At the heart of the decision to move to a BBM regime is an acknowledgement that the current regulatory approach is obsolete. The options paper expressly recognises this and says that the vast majority of submitters on its September 2015 discussion paper agreed.

[19] Telecommunications Act 2001, s 157AA(2). While s 157AA(2)(a)(i) refers to promotion of competition for the long-term benefit of end-users, together with other outcomes, s 157(2)(b) requires the Minister to consider alternative regulatory frameworks, including price control. This recognises the basic point that the promotion of competition is a means to an end – the long-term benefit of end-users – not an end of itself.

36 As for other utilities, a BBM model for telecommunications works from a premise that it is inefficient and/or unlikely that existing infrastructure and services will be replicated. As such, rather than promote competing infrastructure, we agree that the long term benefit of consumers is best promoted by directly regulating for outcomes where investment is incentivised to ensure high quality performance while also ensuring that there are not excess profits.

37 The new regime should be designed to regulate the telecommunications market that has been born from structural separation and the substantial investment in generational upgrades driven by the Government's decision that New Zealand should embrace fibre to the home.

38 The move to a BBM regime does not mean that actual and potential competition is irrelevant, simply that promoting network-based competition at the wholesale level (irrespective of whether it actually exists or is likely) is no longer the central purpose of the regime - and that needs to be made clear to the regulator tasked with implementing the regime.

39 As a BBM regime aims to achieve outcomes that are consistent with a workably competitive market, competition by existing networks and efficient entry by future technologies remains possible. The regime will also of course continue to support the growth of competition at the retail level. Moving to a BBM regime therefore doesn't exclude the possibility of competition developing, it simply recognises that this is no longer the primary objective.

40 As discussed in the previous section, there are pre-existing fixed line networks in some geographic locations – e.g. from HFC, and mobile demand substitution. Spark and Vodafone are increasingly asserting a renewed focus on alternative fixed line infrastructure and mobile network substitution.

Key policy choices to respect the regulatory compact

41 The options paper does not go far enough in providing certainty on key aspects of a BBM for telecommunications in the transition to the new framework. At the recent workshop run by officials there were many requests from industry and consumer groups for clear decisions on, and communication of, policy choices.

42 Moving from one regime to another involves policy choices that are appropriately made by policy makers. They need to be clearly communicated, and the regulator sufficiently directed. We think given the period of uncertainty the industry recently experienced during the copper pricing process, and the implications of a new regime for regulated suppliers, the legislation should specify a much greater degree of guidance around the starting point and the central features of the regime. Issues include:

42.1 the very wide range of potential outcomes that could be argued for when setting the starting value for our regulated asset base;

42.2 how anchor product prices should be set;

42.3 how anchor products might change at the end of each regulatory period; and

42.4 in what circumstances the Layer 1 fibre product might be determined by the regulator and what the implications are.

43 Having chosen to move to a BBM, policy makers must make decisions within a BBM framework to ensure that the fundamental regulatory compact – that efficient investments are recoverable with a fair return – is maintained. This is a policy responsibility in itself.

44 There are also features in the fixed line telecommunications markets that did not arise when applying the BBM to other regulated sections, including:

44.1 actual and potential competition and demand risks, as discussed above;

44.2 the sector is going through a generational transition. The BBM must accommodate the unpredictability of migration;

44.3 the UFB contract provided the commercial certainty for us and others to bid for the national UFB roll out, but it is difficult to interpret its implications in a BBM context; and

44.4 a more complicated product range, including potentially layers of service, than electricity and gas networks.

45 Again, deciding these matters in a way that respects the regulatory compact is a policy responsibility – there is no precedent for the Commission to apply.

46 We think the right approach is to:

46.1 prioritise the integrity of the model, including expectation of recovery of the asset base in return for the low regulatory return. This is what makes the model an appropriate choice in the first place; and

46.2 not assume that each of the particular issues in the telecommunications context requires a change to the orthodox settings of the model but also not assume the Part 4 experience is simply quickly transplanted.

Legislating the policy decisions

47 It is appropriate for policy makers to cement key decisions by way of legislation. We support having a well-defined purpose statement, and use of Government policy statements where settings are detailed or may change over time, to provide guidance on the exercise of the regulator's discretion. But these are not a substitute for clearly articulating core policies in legislation (primary or secondary) and directing the regulator such that implementation supports the outcomes and increases predictability.

48 The experience of the 2011 Amendments to the Act and accompanying Government Policy Statement illustrates this point.[20] In its Policy Statement, the Government sought to promote "*regulatory stability, transparency and predictability giving businesses the confidence to make long-life investments*", and emphasise the need for "*regulation taking full account of the long-term risks to consumers of under-investment in new or upgraded ultra-fast broadband infrastructure*". However, as a result of the legislative settings now under review, the price determinations of our copper products produced years of instability, lack of transparency and unpredictability. Further, that exercise took little or no account of the impact of the price-determinations on investment in the UFB network, as a result of the Commission's interpretation of what the s 18 purpose statement required in context.

49 We acknowledge that, in some cases, it is desirable for aspects of detail to be addressed by the regulator. In other cases, flexibility may be useful to ensure that the regulator can respond to changed circumstances. However, we think that there is a clear case for the Government to make core policy decisions about the initial regulatory settings given that:

49.1 many important decisions (such as how to value the opening RAB and set initial anchor product pricing) only need to be made once – so flexibility isn't required to take account of changed circumstances;

49.2 most of these decisions are in the nature of a policy decision, balancing interests at the start of a regulatory regime, rather than a detailed economic judgement. There is therefore no reason for these decisions not to reflect clear policy choices of the Government, or for them to have to be made by the regulator; and

49.3 providing greater certainty upfront doesn't affect the regulator's independence to make future decisions, roll forward the model or respond to changed circumstances.

A smooth transition

50 It is the policy makers' responsibility to ensure that the transition to a BBM model does not produce revenue shocks for the investors of regulated suppliers or price shocks for consumers, and that matters have increased predictability in rolling forwards without shocks.

51 The Government has said that the legislative framework should establish an explicit policy objective of minimising revenue and price volatility during the transition to the new framework. In order to achieve this the options paper proposes a 'smoothing' of the revenue cap and glide path on anchor product prices.

52 While the Government is right to ensure that any changes to prices or revenue caps are incremental rather than sudden, the smoothing proposal leaves all the uncertainty

[20] Statement to the Commerce Commission Concerning Incentives for Businesses to Invest in Ultra-fast Broadband Infrastructure (13 October 2011) 155 NZ Gazette 4440.

in place but simply mandates that the uncertain outcome be implemented gradually. It does not adequately address the problem posed by the fact that there may be changes to prices or revenue as a result of the move to the new framework. It's also seemingly inconsistent with the proposal for initial anchor products.

53 Ensuring stability of both prices and revenue is fundamental to ensuring certainty and confidence in the transition to the new regulatory framework. What is needed is up front certainty about price and revenue so regulated suppliers, retailers and consumers can all move forward with confidence.

54 Before adding to or adjusting the central proposal of BBM and revenue cap with wash up account, policy makers must:

54.1 show how the central logic of choosing the BBM and revenue cap with wash up account will be maintained. The BBM and revenue cap with wash up account is the appropriate choice because it assures consumers that we will earn an appropriate return, assures us that it will recover our investments and a regulated return on its investments, and gives us the revenue certainty it needs to manage the national migration from one network to another. If suggested additions or adjustments to the BBM and revenue cap cannot be done without detracting from the key policy choice, they should not be made.

54.2 model the suggested additions or adjustments to the BBM and revenue cap before committing the regulator to applying a specific framework. Policy makers should be confident that any additions or adjustments will preserve the integrity of the BBM and revenue cap model across a range of feasible demand and supply scenarios over a lengthy period of time.

55 Where the policy maker determines to proceed with additions or adjustments to the BBM and revenue cap, the regulator will need explicit guidance in the new legislation.

PART C: DESIGN OF THE BBM

56 It is incumbent on policy makers to direct the regulator clearly on the key policy outcomes they are seeking to achieve, including how to manage the transition to a new regulatory regime without creating price or revenue shocks. Both consumers and investors must have confidence in the credibility of the transition to the new framework by being able to reasonably predict price and revenue outcomes.

57 The situation policy makers are presented with is an industry facing transition to a new regulatory regime. It is not a situation where there has been no previous price control. Copper and fibre products are already controlled through regulator determinations and UFB contracts. There are market expectations around those existing prices and price paths.

58 We broadly agree with the BBM design proposals outlined in the options paper, but do not think they go far enough if the policy is to mitigate price and revenue volatility. In particular, leaving open a wide range of starting valuations risks driving a divisive and volatile starting round with a potentially wide range of unpredictable outcomes and timing challenges.

59 The suggestion that policy makers might leave open a full regulatory debate has caused some concern in the market. The regulator would have to consider submissions on what methodology and then on all of the matters raised in the options paper (and more). The regulator can't short circuit that, as we saw during the FPP TSLRIC process.

60 In our view, delivering on the policy objectives outlined in the options paper won't be achievable without more upfront legislative guidance to the regulator on the starting point for the regime. Without this, there will be a lengthy process, with the prospect of price shocks for customers, revenue volatility, and instability.

61 There is a clear opportunity for policy makers to provide good guidance in the interests of avoiding the risk of re-opening debates. Those debates were recently settled through the FPP process.

Form of control

62 A revenue cap with a wash up account is the right starting point for the new framework. A revenue cap model is consistent with Transpower's model, NBN Co in Australia and trends in both New Zealand and Australian BBM regimes - away from the alternative weighted average price cap (WAPC) model.

63 An orthodox revenue cap model:

63.1 better accommodates demand uncertainty and places less stress on a regulator seeking to forecast demand in such circumstances;

63.2 is consistent with the policy of a consumer led migration, using a combined copper and fibre approach. The proposed approach enables technology neutral products and recognises that transition in all UFB areas was

contemplated to continue over years to come (beyond 2020) rather than any mandatory and agreed migration; and

63.3 takes care of actual cost recovery and the provision of a regulated and fair (but not excessive) return on investment, meaning there is no need for additional measures to ensure those protections.

64 A revenue cap model strikes the balance between protecting consumers from excessive profits while allowing a fair return on and of capital for investors (in turn attracting further investment that will benefit consumers). But care is needed to ensure that other aspects of the framework do not dilute this regulatory compact so as to deter investment.

Combined RAB

65 We agree with a combined copper and fibre framework and single RAB, and this should be specified in legislation. Such an approach has many advantages, including:

65.1 avoiding a complex cost allocation;

65.2 facilitating a consumer led migration from copper to fibre. For example, it allows copper and fibre prices to balanced, avoiding the risk that copper prices increase as customers migrate off the copper network and/or fibre prices increasing given the significant recent and ongoing investment; and

65.3 allowing for technology neutral anchor products to achieve the policy aims for anchor products that the options paper sets out.

Scope of the RAB

66 The options paper proposes that the services regulated by the BBM be "fixed line access services". This definition will therefore set the scope of assets that might be included in the RAB. Limiting the scope of the RAB to access services presents a number of practical challenges that need to be considered.

67 Wholesale access services (to the first data switch) make up around 90% of our business. They are all controlled today through regulatory determinations (copper) or by contract with CFH following competitive tender (fibre). Non-access services, including backhaul, make up the remaining ~10% with some of these services also regulated by the Commission today.

68 We are concerned that the potential proposal for a separate regulatory model (i.e. the legacy Telecommunications Act model) to apply for the non-access services will increase complexity in the framework.

69 For example, the nature of telecommunications networks mean that most network assets are used to provide a number of different services. Two different frameworks would require cost allocation between the two models. History has shown that cost allocation in telecommunications is incredibly complex - it is difficult to map shared assets to particular services with any degree of accuracy. Managing capital approval

processes under a dual regulatory approach with shared assets would also present difficulties.

70 Similar challenges would arise if our network in LFC areas was excluded from the scope of the RAB. There are also competition considerations in those areas.

71 In such a complex exercise, the risk of regulatory error is high. Careful consideration would need to be given to ensuring that any allocation approach did not drive perverse outcomes – whether that be in terms of our ability to make a return or in skewing competition.

72 The Commission currently has a backhaul market review underway. If that work could be concluded more quickly, it may help inform this policy process.

Deregulation mechanism

73 We agree that the regime should allow a process to remove suppliers from regulation. This includes removal of regulation if particular services or geographic areas face actual or potential competition.

74 We expect that fibre will be the technology of choice for many years. However, the telecommunications industry is one in which rapid and unanticipated technology change is possible. While there might be a temptation to try and anticipate all potential future competition, and build that into the framework now, a more orthodox approach (particularly for industries that face rapid change) is to allow for changes if and when competition develops.

75 We think that a test for removal of regulation that asks whether the services are supplied in a market where the supplier has a substantial degree of market power is the right test. This is the test for removing gas suppliers from regulation under section 55A(6) of the Commerce Act, is consistent with the exclusion of competitive lines from the definition of electricity lines services in section 54C(2)(e), and it is also aligned with the requirements for regulation under section 52G(1)(b).

76 We expect that the Minister and the regulator will apply sensible market definitions when reviewing whether to remove a supplier from regulation in a particular market, which should address the issue of "pockets" of competition and in a very timely way.

Starting regulated asset base

77 The opening valuation for the RAB is a key aspect of the starting point of the BBM framework. It directly affects the maximum allowable revenues for regulated suppliers. We agree that there should be no price or revenue shocks in the transition to a new regulatory framework – and the starting RAB goes to the heart of achieving that policy objective. Legislation should be used to guide the regulator on the initial RAB methodology to achieve that outcome.

78 The range of potential methodologies for determining the opening valuations is very wide – with outcomes that are likely to vary by $billions. We are concerned that the options paper suggests that the choice of methodology of the initial RAB will be left to

the regulator – with fulsome proceedings on methodological choices and application of the methodology.

79 This would mean revaluing the copper network, despite the Commission spending the last four years consulting on it. It would also likely mean opportunistic debates about the prudency of UFB and RBI build costs, despite those build initiatives having had close Crown oversight and scrutiny.

80 To put this in context, there is no reason to re-litigate the current outcomes. There can be no suggestion that we are currently earning excessive returns. Our copper services are regulated by the Commission; our UFB services are regulated via the UFB contract, which was the result of a competitive tender. This accounts for all of the services where we might be said to have a degree of market power, and around 90% of our total revenues.

81 The reason we are in this policy process is because of the revenue and price volatility resulting from the current framework. As a country seeking to make significant infrastructure investment, we simply can't afford to repeat history.

82 Prices for wholesale broadband have decreased since 2011 and quality has increased.

83 The valuation at the start of a regulatory regime needs to be fair because the incentive to invest is critically dependent on how today's sunk assets will be treated over a number of decades.

84 This point was emphasised by Professor Yarrow – the independent expert advising the Commission – during the development of the Part 4 Input Methodologies. Professor Yarrow said:[21]

> *To put it very crudely, I mean if one is at the start of a new regime, which is hopefully a new beginning and a new partnership, it seems difficult to think that that would work well if it starts with a mugging of one side by the other. So I would say that there is a fairly narrow range actually of possible valuations that will give you a mugging free start. [Laughter] Now that may not sound like economics but let me answer you that it is. Let me argue that in a wide sense this is the economics and it's the economics of efficiency, and that all this accounting stuff - I'll be provocative here - is closer to ideology than to economics. Because for a regulatory regime to work it has to have credibility and it has to be legitimate and it has to be legitimate for all parties involved. And I think rate shocks are to be avoided for that kind of reason, because they do undermine legitimacy and a regime which loses legitimacy or is lacking or lacks credibility is going to operate inefficiently in the long run.*

85 The question of what is a fair (or mugging-free) outcome is not a narrow regulatory economic question appropriately delegated to an independent regulator. Rather, it is a quasi-political question for which the government is much more qualified than an independent regulator.

[21] Transcript of Commerce Commission IM conference; 17 September 2009; page 351, line 20.

86 In the Part 4 context, the Commission and High Court considered this implied using opening valuations that are consistent with investor expectations, and the continuing relationship between suppliers and consumers. Good practice in that context favoured having regard to existing valuations, and avoiding one-off write downs.[22]

Policy decision on initial RAB value

87 To achieve the desired policy outcomes, and provide investors with confidence, there needs to be legislative guidance (whether that's primary or secondary legislation) for the regulator on the opening valuation methodology.

88 Regulatory economics does not provide a single, unambiguous method for setting the value of the initial RAB at the start of a regulatory regime.

89 Without legislative guidance on the methodology that achieves the desired outcomes (and guidance on the outcomes being sought), no amount of economic debate and head scratching in a regulatory process will come up with a "correct" economic approach without clarity on the outcome being sought.

90 The policy maker should take the lead on specifying the approach to valuation for the initial RAB in this situation of moving from one regime to another. This does not encroach on the Commission's role as independent regulator. The opening valuation question is a one-off, and tightly linked to the policy assessment as to whether the BBM is the right regulatory approach.

91 The regulator will still decide on the regulatory settings going forward. They will still ensure fair prices for consumers by ensuring that we don't make more than our allowable revenue; they will identify efficiency incentives; and they will approve major capital expenditure (amongst other things).

92 There's also precedent for government's guiding the initial valuation. For example, in Victoria, the government formally set initial values for the water sector.

93 We think that guiding the regulator to use a "line in the sand" methodology to set the initial RAB valuation will best achieve the policy of no price or revenue shocks, is in line with reasonable investor expectations, and will support a "mugging-free" outcome. We provide more detail on this methodology below.

94 If the regulator is not directed as to outcomes, and is instead required to work through each of the issues in selecting a valuation methodology, we have the following comments on issues raised in the options paper. We think it is important that these matters are dealt with in legislation to guide the regulator. History tells us that amended purpose statements and Government Policy Statements are not enough to ensure desired outcomes.

[22] Commerce Commission Input "Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper", December 2010, page 98.

Prudency and efficiency

95 We agree that the regulator should not second guess whether it was prudent to make UFB, RBI or non-standard installation investments or whether they were efficient. The legislation must deem all such capital expenditure as prudent and efficient whether made or to be made in the future.

96 As the options paper recognises, we have had strong incentives to deploy cost effective UFB build and installations. As an NZX and ASX listed company, and one that has had extraordinary external scrutiny and has reshaped its business following the initial copper benchmarking decision, we have every incentive, and indeed face market disciplines, to ensure that costs are efficient. During the FPP process, we were clear that we have negotiated to achieve the lowest costs possible and there has been no suggestion in the market that we have been anything but efficient.[23]

97 A failure to give this direction will send very poor signals to existing and future investors, act as a disincentive to additional investment and would be inconsistent with the s19A Government Policy Statement issued in 2011.

UFB financing

98 The options paper has raised whether UFB funding should be considered differently when setting the initial RAB value, or the relevant weighted average cost of capital (WACC) for us or when determining the depreciation profile for UFB assets.

99 Chorus will spend around $3b on the UFB rollout. UFB financing has provided an interest free loan. But that loan must be repaid. The form of financing does not change the capex that is incurred. If there is any suggestion that we recover any of those capex costs from UFB financing, that is simply a misunderstanding. Clear guidance is needed to remove any potential debate.

100 We agree that the financing was necessary to bring forward investment ahead of demand that would not have otherwise occurred. The financial support was provided in exchange for service providers bringing forward their investment plans, and it is reflected in the price paths agreed up to 2020. That financing did not reduce the risk Chorus faces in rolling out UFB from a WACC consideration perspective.

Copper assets

101 Copper assets should be retained in the RAB. We are not like Australia where Telstra received compensation for the stranding of its copper network. Once assets are in the RAB, we should be able to earn a reasonable return on and of our capital without regard to the utilisation of that asset.

Depreciation

102 The choices to be made on depreciation are integral to the approach to the setting of the initial RAB. The depreciation profile must be consistent with investor expectations

[23] We addressed the question of efficient costs at length in the FPP process, including in our cross submissions of 13 August 2015 (pages 6 and 50) and 24 September 2015 (pages 3 and 6).

and be seen as objectively reasonable by all parties, by reference to matters such as expected rate of recovery of the infrastructure investment and expected price paths.

A line in the sand approach

103 We think the correct valuation approach is one that carries forward the outcomes (and expectations) that existed prior to the transition to the building block approach. An opening valuation for the combined asset base (copper and fibre) that generates those outcomes and expectations is the "line in the sand" approach.

104 This approach reflects the fact that there we are not in this policy process because of concerns about us making excessive returns. The principal reason for transitioning to the BBM is to translate the current reasonable outcomes into a regime that is enduring and flexible (including to promote a mature conversation with customers about what they want, and to encourage the efficient delivery of those outcomes).

105 A line in the sand approach can assist in the carrying forward of a number of outcomes. In our view the most appropriate approach would be to apply the line in the sand approach to existing and reasonably expected prices. The line in the sand approach applied to existing and expected prices:

105.1 is consistent with the current relationship between us, RSPs and consumers;

105.2 is consistent with investor expectations, as investors think of value as a function of future prices and cash flows;

105.3 will avoid price and revenue shocks; and

105.4 is consistent with the current process of migration from the copper network to the UFB network.

106 As advised by Incenta:[24]

> *The rationale for adopting the 'line in the sand' approach based on an outcome such as current prices is that normally this is an outcome that is seen as objectively reasonable. That is, where there is no strong reason to believe that current prices are too low, and nor is there a pressing case that current prices are too high.*
>
> *…*
>
> *The 'line in the sand' method has been applied extensively in Australia, and has been manifest either in adjustments to some form of starting asset value so that an intended price outcome is generated, or as the principal method for asset valuation.*

107 While the quantification of the opening valuation will be delegated to the regulator, there are key aspects of the method that can – and should, as a key policy matter – be settled by the Government prior to that delegation. This includes:

[24] Incenta "Regulatory asset valuation for the Chorus copper and fibre networks", August 2016 (*Incenta report*), page 10.

107.1 *Methodology* – directing the regulator to determine the opening valuation to be consistent with generating current and expected prices.

107.2 *CPI price-paths* – providing direction about the trend in prices post 2020 that the regulator should assume in its analysis, being the trend that would have been a reasonable expectation for all parties. Our view is that the most reasonable expectation for all parties would be for prices to have continued on a CPI-indexed trend after 2020. This reflects the nature of the investment: the UFB project involves a large upfront investment in what is hoped will be a stable technology, with the costs of which being recovered over coming decades. The fairest and most efficient means of recovering the costs of such projects is via a CPI-indexed price path, and this is what is seen in the infrastructure sectors that provide the closest comparison (such as toll roads and energy network utilities).

107.3 *Consistency and tailoring* - directing the regulator to calculate the opening valuation in a manner that is most *consistent* with the methods and assumptions that will be used subsequently to set prices. Those regulatory assumptions and methods should also be *tailored* so that the BBM is expected to generate prices that match as closely as possible the target set as reasonable by the Government.

108 The alternative is to apply the line in the sand approach from a regulatory valuation. This is what the Commission did in 2010 for the Part 4 regulated businesses. This would require a pragmatic view to take the regulatory copper valuation that supports the current regulator determined copper pricing (discarding debates that will go both ways) and add UFB and other new investment.

109 Guiding the Commission does not require specification of a valuation although as policy maker directing a change from one regime to another this would not be inappropriate. There is also precedent in Australia of such an approach.

Alternative valuations considered

110 We have considered alternative valuation approaches which the options paper has raised. We see these being left open as driving a highly contentious and lengthy approach. Our view on each of the alternative approaches is, briefly:

110.1 *Replacement cost valuations* – this is a more common approach where there has been no regulatory regime in place to date. The process is likely to be long and complicated, similar to the FPP process over the last 4 years, with uncertain outcomes and timing challenges;

110.2 *Unrecovered investment value* - this approach presents information challenges – particularly when investments were made many years ago (some under Government ownership) and assets have been used for multiple services (prior to demerger, for both retail and wholesale services);

110.3 *Depreciated historic (or actual) cost* – this approach is rarely used in BBM regulation as it is highly unlikely to measure the unrecovered investment made by the investor.

111 We discuss these alternative valuation approaches in Appendix Two.

Asymmetric wash up

112 It is unclear why the options paper proposes asymmetric risk for Chorus when the Commission has recently considered and disregarded this for other utilities in New Zealand. Transpower and NBN do not face an asymmetric wash up in their revenue cap models.

113 The proposal is inconsistent with the regulatory compact of a BBM and would diminish incentives to innovate and invest, undermining the Government's long-term goals for the telecommunications sector. The proposal is unorthodox and would unjustifiably increase risk on regulated suppliers, while at the same time undermine what a BBM model aims to achieve for consumers and investors.

114 The view is that the proposed hybrid model for Chorus (an overall revenue cap to protect consumers against the possibility of excessive profits, and product-specific caps for anchor products) will deliver a level of equitable access and price stability. At the same time, the view is that it will also relieve us of demand forecasting risk – on the basis that any under-recovery in relation to anchor products can be recovered in prices for non-anchor products (either within the regulatory period or through a wash-up account that carries over from one regulatory period to the next).

115 This is consistent with BBM regulation. However, the options paper then proposes an asymmetric wash-up whereby there is a wash up if the revenue cap is exceeded, but if there is under-recovery then there would be no wash up.

116 For the BBM construct to work to attract new investment, the regime must not compromise a regulated supplier's ability to achieve up to our allowable return.

117 We explain in Appendix Three why an asymmetric wash up:

117.1 would be inconsistent with the regulatory objectives, including by discouraging incentives for efficient investment and innovation;

117.2 is unorthodox and not supported by existing regulatory practice;

117.3 would not address limited network and future unknown competition; and

117.4 would not incentivise responsiveness to market demand.

Cost of capital

118 Chorus' WACC under a BBM approach needs to recognise the higher risks associated with the investment in new fibre network infrastructure, relative to the investment in the existing copper network infrastructure.

119 In the FPP process, the Commission considered that there was a weak case under the TSLRIC regulation for applying a WACC uplift to incentivise further investment, relative to electricity and gas lines businesses. The Commission's justification was that under TSLRIC pricing, new investment by us does not affect the regulated price caps – suggesting a WACC uplift was less likely to affect our incentives to invest in UCLL/UBA. The Commission expressly noted that this differs from the situation under Part 4, where new investment is rolled into the RAB.[25]

120 On this basis, we expect that our WACC will be higher under BBM regulation than that applied in the FPP process. We expect that the Commission will adjust its methodology for estimating the WACC parameters which are the same for all regulated sectors, namely risk-free rate, debt premium and tax-adjusted market risk premium (TAMRP), in accordance with the comments received from various parties in the current Part 4 input methodologies review.

Treatment of UFB financing

121 UFB funding is not relevant to determining the WACC as it is done in New Zealand. Regulatory WACC does not depend on the actual costs of funds of the regulated supplier. If this is to be potentially contentious then policy makers should remove the issue from debate.

122 Most recently, in the context of its input methodologies review, the Commerce Commission stated:[26]

> *"The relevant estimate is the market's view of the cost of capital for providing the service, not the cost* ***of capital specific to one supplier, or a supplier's view of its cost of capital for that service****."* (emphasis added)

123 Based on the Commission's views in the recent copper processes, we and investors will expect the cost of capital under BBM regulation to be higher than that applied in the copper pricing process. The Commission made a point of noting the difference in approach to WACC uplift between TSLRIC and BBM regimes. The higher risks associated with our circumstances and investment need to be properly accounted for.

Major capital expenditure approvals

124 If a pre-approval process for major capex approvals is included, it should ensure that:

124.1 There is sufficient ability, incentives and flexibility to invest in non-major capital activities in an unfettered way;

124.2 There are short, definite timelines that do not present an opportunity for actual or potential competitors to delay investment; and

[25] Commerce Commission, Cost of Capital for the UCLL and UBA pricing reviews, Final Decision, 15 December 2015, para 221.

[26] Commerce Commission, Input methodologies review draft decisions, Topic paper 4: Cost of capital issues, 16 June 2016 at paragraphs 26-27.

124.3 The regulator is clear that it cannot decline investment in favour of alternative infrastructure as that would distort the regulatory compact. The regulated should be no more harshly treated than the unregulated.

125 Getting the details right include, in particular:

125.1 ensuring that capex proposals are able to be efficiently progressed, including by making separate provision for base capex which does not require project-specific approval from the regulator;

125.2 making sure that the right efficiency standards for review and approval of capex projects are set; and

125.3 reflecting the fundamental differences between both Transpower and fixed line telecommunications suppliers, and the relevant industries. The structure of thresholds and definitions will need to be adjusted to be suitable for telecommunications utility projects and the fast-changing technology.

126 Importantly, the process must be designed to ensure it cannot be exploited by actual or potential competitors. In areas where competing networks exist, or where competing network deployment is being considered, the operators of those networks will have a strong incentive to prevent or delay investment by Chorus.

Efficient review of capital expenditure

127 It is important that any capex review does not prevent efficient investments being made in a timely manner. There are two important aspects to this, both of which are consistent with the Transpower model. These are ensuring:

127.1 that minor capex projects can progress quickly without specific prior approval;

127.2 that the timeframes for prior approval of major capex projects are appropriate.

Base capex regime

128 The Transpower model includes a separate regime for base capex (previously referred to as "minor" capex). Base capex includes expenditure within a monetary threshold and also particular types of expenditure (asset refurbishment, asset replacement, business support and information system and technology assets). All IT and lifecycle capex, for example, is base capex. Such a regime should also apply for us.

129 For Transpower, base capex for each regulatory period is approved by the Commission and set prior to the start of the regulatory period[27], rather than the Commission rejecting or approving instances of capex on a project-by-project basis. Transpower then reports annual information on approved base capex projects.

[27] We note that this implies a very long forecast timeframe, approaching seven years, given development of the plan, submission to the Commission and then the regulatory period itself.

130 There would be significant process and efficiency benefits in allowing us similar flexibility to incur certain capex without *ex ante* approval on a project-by-project basis. For example:[28]

130.1 options for base capex are likely to be more limited and less contentious than major capex projects, so there is little justification for undergoing a rigorous *ex ante* approval process for each;

130.2 we would have the flexibility to prioritise and substitute expenditure between projects within the overall allowance. This is necessary given the long forecast timeframe;

130.3 we would retain incentives to improve the quality and accuracy of forecasting, and to undertake planning in a more integrated manner;

130.4 the regulator would be in a position to consider base capex plans in a more integrated manner; and

130.5 a greater proportion of expenditure could be included in the forecast maximum allowable revenue, providing greater price certainty.

Timeframes for approval of major capex

131 Short and certain timeframes for approval of major capex are essential to maximise the timeliness and efficiency of expenditure. Short timeframes also avoid altering the dynamics for actual or potential competitors offering potential substitution services.

132 We note that, for Transpower's capex input methodology (*IM*), the Commission must set timeframes for evaluating capex proposals, including what happens if the Commission does not comply with them.[29] In practice, in the IM, the consequences of non-compliance with timeframes are limited,[30] but decisions on Transpower capex proposals are nevertheless often made within a few months. For the reasons given above, it is essential that timeframes are as certain and compressed as possible.

The test for approval of major capex

133 We agree with the adoption of an efficiency-based standard for major capex investment approvals, and this should be incorporated into the legislation. Such a standard promotes appropriate investment incentives.

134 Approval for major capex for Transpower is based on a cost-benefit analysis. However, this analysis may be more complex in a telecommunications context compared with Transpower's investments. In the case of Transpower, loss reduction is a reasonably straightforward and measurable benefit. In the case of major capex

[28] See Commerce Commission, Transpower Capital Expenditure Input Methodology: Reasons Paper (31 January 2012), 2.4.3 and 2.4.7.

[29] Commerce Act, section 54S.

[30] The Commission's decisions are not invalidated by a failure to meet timeframes (Transpower Capital Expenditure Input Methodology Determination, clause 5.1.1(1)).

by Chorus there is no such simple measure. Accordingly, even if an efficiency test is included in the legislation, significant discretion would be left to the regulator.

135 It is also important that this cost-benefit analysis is applied in a competitively neutral manner, where the potential for competition exists. The regulator should not be in the business of picking winners through the mechanism of assessing capex proposals of one participant. Others have the freedom to commit capex. Constraining us from making otherwise efficient investments isn't the purpose of BBM regulation, and would distort what should be a level playing field.

136 We think it would provide a fair competitive landscape if the regulator were to approve or reject major capex proposals, in the form they are presented to it, based on the relevant efficiency test. This is consistent with the Transpower approach where, if a project receives approval, "the key features of the approval will be those set out in Transpower's proposal".[31]

Confidentiality

137 Careful thought needs to be given to balancing any pre-approval consultation requirements with protection of information that is commercially sensitive.

CPI indexation

138 A line in the sand RAB needs to take account of prices and price paths expected for the five year regulatory period. A reasonable expectation of all parties is CPI.

139 This view reflects the nature of the UFB – for a project where most of the costs are recovered upfront and then recovered over an extended timeframe, a CPI linked price path is both fair and efficient, and is consistent with how the costs of the most comparable assets are spread over time (like toll-roads and utility services). The past experience with telecommunications prices – where substantial price reductions have arisen as a consequence of technological change – is not relevant to the UFB component of future fixed line telecommunications services, which is expected to be the backbone around which innovation occurs.

140 Once the initial RAB is set, we would expect the regulatory settings to be calibrated so that the intention that prices approximately track movements in the CPI is delivered to the extent possible. This outcome for the long term will be delivered through the combination of the choice of depreciation method and indexation of the RAB and prices for CPI.

141 We note that a further motivation for CPI indexation of revenues and the RAB under a BBM is to provide protection to investors from inflation risk (and reflecting also that this risk is more easily borne by final customers), which the Commission has endorsed, and which we support.

[31] Commerce Commission, Transpower Capital Expenditure Input Methodology: Reasons Paper (31 January 2012), X19.

Quality input methodology

142 The options paper proposes to require input methodologies for network and service quality matters. This is a more intense form of regulation than for Part 4 industries. In those industries, no input methodologies for network and service quality matters are prescribed and instead quality standards are prescribed directly through section 53P determinations (the quality standards for other industries are also less prescriptive and cover fewer areas than those proposed by the options paper).

143 The usefulness of input methodologies for network and service quality matters will depend on the detail with which those matters will be regulated, and whether an approach to rule-setting quality and reliability requirements can be separated from the detail of those rules.

144 There should be a distinction between service-specific and global quality factors. Some of the examples of generic quality and reliability requirements are issues for product descriptions rather than an input methodology – in particular requirements relating to throughput on services, and quality of network deployment and installation.

145 We're inclined to be flexible with regard to what's included in these requirements, provided that the input methodologies and rules for capex approval take into account the need to meet the prescribed standards, such that the costs of meeting the quality requirements flow into the BBM and are recovered through service charges. We think this creates the right incentives to ensure any requirements are reasonable.

PART D: PRODUCTS AND PRICES IN A BBM FRAMEWORK

We support the proposal for two sets of products within the BBM model. We support the initial set of anchor products and incentives to innovate and increase constructive engagement within the framework.

Both sets of products sit within the BBM regulatory framework. So we call them "anchor" and "non-anchor" products (rather than "commercial").

The policy proposals support continued wholesale fibre bitstream differentiation. In turn this supports maximising demand for, and use of, better broadband as well as investment. It's important to recognise the existence of a revenue cap provides a constraint not present in overseas models using an anchor product approach.

Ensuring availability of affordable voice and basic broadband services naturally suggests the TSO should be modernised to ensure coherency, including passing TSO obligations to LFCs offering UFB services.

We support clearly communicated outcomes - keeping focus on outcomes (rather than just "inputs") and strong guidance to support those outcomes at the implementation stage. We support increased flexibility[32] in the way products are set. More responsibility should sit with the regulated supplier rather than the regulator in designing products and terms – while regulatory oversight is maintained.

A cost oriented layer 1 unbundled fibre product is an entirely different product policy choice. It involves different trade-offs including the potential collapse of bitstream differentiation, reduced broadband uptake and making investment less attractive.

146 The BBM model and revenue cap form of control takes care of any excess profit concerns for consumers and ensures a fair return on and of capital for investors (the regulatory compact). Accordingly, individual products do not need to address cost recovery or cost orientation.

147 There are other outcomes the Government is seeking to achieve in the new framework too. A major part of achieving these outcomes is policy choices on products. There are options available to achieve these that are consistent with the regulatory compact, will deliver the certainty and stability suppliers and consumers need, and avoid unnecessary complexity.

148 In this section we discuss the important features of products in a BBM:

148.1 the key concepts of product differentiation and open access that underpin a product environment that will achieve the policy aims;

[32] Ministry of Business, Innovation and Employment Telecommunications Act Review: Options Paper, July 2016 (*options paper*), p17.

148.2 anchor products, their purpose and how they can work within a BBM;

148.3 non-anchor products;

148.4 pricing and review of anchor products and geographic averaging of anchor and non-anchor products; and

148.5 unbundled layer 1 fibre access, and why cost orientation is incompatible with the BBM framework.

Differentiated product set

149 In proposing a differentiated anchor product set with the expectation of further differentiated non-anchor bitstream products the options paper acknowledges the benefits of a differentiated layer 2 product set.

150 We agree with the benefits of differentiation. As we noted in our response to the September 2015 discussion document,[33] bitstream product differentiation is a useful tool for enabling a range of positive policy outcomes:

150.1 digital social inclusion - with differentiation, consumers with a low willingness to pay for fibre products can have access to an entry level fibre product, priced affordably (at the same level as their current copper service under the technology neutral anchor product proposal);

150.2 creates incentives for investment - differentiation can boost uptake and revenue as consumers are better able to access bitstream products that are aligned with their willingness to pay. As Plum Consulting highlights, this leads to a greater level of efficient investment at wholesale and retail levels in the industry;[34] and

150.3 efficient copper to fibre migration - differentiation offers access to entry-level fibre products, priced at the same level, or an attractive level given the performance increase relative to copper, which encourages and enables efficient migration.

151 We agree with the proposal to exempt anchor products from equivalence as to price to enable retention of a differentiated product set. A provision equivalent to sections 63 and 78 in the Telecommunications Act today is also required for the BBM framework to operate as proposed.

Open Access

152 Structural separation has taken care of legacy concerns about the vertically integrated Telecom. We continue to support open access and the level playing from which all RSPs can invest, innovate and compete to the ultimate benefit of consumers.

[33] See for example, Chorus' Submission in response to the Ministry of Business, Innovation and Employment's Discussion Paper, 30 October 2015, pages 49-54.

[34] Plum Consulting "New Zealand's telecommunications policy – a way forward" (October 2015); page 8.

153 We support updating and simplification of the open access deeds to make them more coherent with the BBM framework. We don't need three deeds with a number of identical provisions and provisions that have become redundant post demerger.

154 We note that equivalence is a feature of the old, no longer fit for purpose world.

155 The purpose of equivalence was to ensure a provider buying the equivalence of inputs product gets exactly the same as internally supplied so it can compete with the vertically integrated supplier's downstream business. It was against the backdrop of perceived "reluctant wholesaling" and grounded in the legacy framework of promoting network competition. Those considerations are not relevant in a structurally separated environment. Today it fails the "clear necessity" criterion.

156 We remain 100% committed to operating an open access network and removal of an equivalence obligation would not diminish the open access nature of our network, services or culture:

156.1 non-discrimination is the fundamental obligation that ensures open access – all providers are able to access the network on the same terms ensuring a level playing field for retail competition;

156.2 reference offers are published and are available to all RSPs;

156.3 we've built our network ready for equivalence - this wouldn't change because of the removal of a regulatory overlay;

156.4 there has been no serious suggestion of inequivalence or discrimination since we demerged from Telecom; and

156.5 open access is embedded culturally and this has been monitored by the regulator and through reporting.

Anchor products

157 As we set out in our October 2015 submission, anchor products can be used to complement a revenue cap. The policy objectives of anchor products are:

157.1 to ensure the availability of entry-level telecommunications services consistent with affordability and social inclusion objectives;

157.2 to support continuity in a change from one framework to another; and

157.3 to act as an economic anchor affecting the price and quality of related non-anchor services.

158 We are happy to offer the voice, entry level and basic broadband services outlined which we understand to be:

158.1 a voice-only product – a voice path delivered over any technology;

158.2 an 'entry-level broadband' product – a layer 2 bitstream connection delivered over ADSL2 on copper and 15/1Mbps on fibre; and

158.3 a 'basic broadband product' – a layer 2 bitstream connection delivered over VDSL2 on copper and 100/20Mbps on fibre.

159 To unpack that further, what this translates to is:

159.1 The voice product equates to the concept of technology neutral "baseband". We note that some regulatory instruments today do (unintentionally) trip up technology neutrality;

159.2 The copper "entry level" and "basic level" seek to split out ADSL2 and VDSL2 UBA such that they are priced differently (cf: the UBA STD today); and

159.3 We would create a new entry level 15/1 fibre product and we would roll forward the 100/20 UFB product.

Bitstream anchor products

160 We welcome the bitstream anchor product proposal which ensures that entry level and basic broadband services are available to consumers at affordable prices – at least on our network. Within the BBM framework this can occur without any discussion of traditional compensation or TSO type mechanisms.

161 The concept of an anchor product is a basic product that acts as a constraint on higher spec options. We have submitted papers from Plum Consulting at earlier stages of the review consultation process that describe this anchor product approach as used in the UK and EU – albeit without the additional revenue cap constraint proposed here.[35]

162 The proposals in the options paper also depart from the UK/EU approach in suggesting technology neutral bitstream anchor products. In our specific market context, we support that adjustment. Although, we note that in reality fibre will act as a constraint on copper and is likely the real anchor.

163 The key advantage of bitstream anchor product regulation is simplicity (with no need for cost modelling). It also provides greater freedom and incentive for price experimentation and differentiation in the non-anchor products. Differentiation supports fibre uptake and increased and efficient investment. However, it does require judgment as to what anchor product is sufficient to act as a constraint, while not overly constraining the benefits of non-anchor products.

164 The options paper rightly acknowledges this and that anchor products should not soak up a disproportionate amount of demand and revenue. The options paper observes that, as at 31 December 2015, the equivalents of the three proposed anchor products represented 87% of our fixed line connections. That is partially a function of the

[35] Plum Consulting "New Zealand's telecommunications policy – a way forward" (October 2015).

majority of connections still being on copper UBA and that will continue to shift as more consumers switch to fibre up to 2020 and beyond.

165 Obviously, 87% of connections in the anchor set is too high. If anchor products soak up too much demand, this undermines flexibility and the benefits of the differentiated product approach. It would also undermine the overarching revenue cap approach - essentially resulting in a de facto price cap form of price-quality regulation. A perceived or actual impediment to a reasonable expectation of achieving maximum allowable revenues undermines the very foundation of the regulatory compact for consumers and investors. That position is exacerbated when coupled with the asymmetric wash up proposal.

166 We've set out framework proposals to illustrate an approach for setting and reviewing anchor products in Appendix Four. Clear direction will be needed that anchor products should not comprise the vast majority of a regulated supplier's services.

Voice anchor product

167 We appreciate the desire to continue to guarantee affordable voice access across most of the country, even though the focus today and tomorrow is a broadband one. The proposed voice anchor product retains a voice only product in the market at affordable prices – at least on our network. We understand the proposed product to essentially be the baseband concept that already exists. It is not, however, a true economic anchor in the terms discussed above.

168 We support technology neutrality of this service too. Provided that consumers have the equipment needed to use the service, there is no reason for requiring that a service be analogue or that it be fixed. The TSO network service is intended to be technology neutral but the particular terms of the deed prevent use of some technologies.[36]

169 The voice anchor also presents the opportunity to make some constructive changes in how the TSO is approached. The proposal for a voice only anchor product effectively duplicates the TSO network service obligation. The options paper does not propose how these obligations can work together. This is the opportunity to simplify arrangements and continue to support basic services at affordable prices – rather than having competing legacy instruments adding layers of complexity.

170 A principled and updated approach should see LFCs take on wholesale voice service obligations in their areas – whether that be through offering anchor products or under a TSO instrument. Some LFCs have already completed their build but have not taken on these basic obligations for consumers. We note that some clarification to legislation will be required in order for LFCs to be able to be subject to TSO instruments.

[36] In some areas the most appropriate solution might be satellite or mobile based. Today, backhaul for voice services in some rural areas is provided by radio. Some of the equipment used in those radio backhaul solutions is aging and is difficult to replace because analogue voice is legacy technology and the equipment is no longer manufactured. It makes sense to ensure voice access to these consumers with satellite or mobile.

171 There is a clear opportunity to consider to bring the anchor products and the TSO deed requirements together into one. This could still coherently sit within the BBM framework. We have put forward a third "backstop option + anchor product" implementation option which could accommodate this approach.

Keeping the regulatory compact

172 However the anchor products are set, it is essential that the regulatory compact is held true. This includes:

172.1 ensuring overall coherency of the model and its aims;

172.2 ensuring anchor products do not soak up the vast majority of the market such that the regulated suppliers do not have a fair chance of achieving (capped) allowable revenue;

172.3 consistency with product roadmaps and incentives to invest; and

172.4 encouraging more constructive engagement on product development and innovation as opposed to the burden of full regulator led processes.

Non-anchor products

173 With a significant portion of our revenue subject to price-capped anchor products, we need flexibility to manage our non-anchor products so as to be able to achieve our regulated return. Any restrictions on non-anchor products will limit a regulated supplier's ability in this regard so they must be clearly necessary in order to be acceptable.

174 We support incentives to innovate and increase the uptake of better broadband by more New Zealanders. We are concerned to ensure that the integrity of these incentives and the model are carefully considered. Notably, there are high risks in being able to achieve already capped revenue for the regulated suppliers and no concept of reward as a motivating incentive.

175 It must be kept in mind that non-anchor products are, under the proposed model, substantially restricted already due to the existence of a revenue cap and the presence of anchor products – the express purpose of which is to "act as an economic anchor for the other products in the value chain".

176 Policy makers should also factor in our market context outlined in Part A - including two large, vertically integrated RSPs with significant countervailing power. Regulated suppliers of telecommunications face isolated competitive pressures and substitution risks greater than other utilities. These also provide incentives to continually innovate and improve. This market context, and the attendant risks and incentives on regulated suppliers, does not appear to have been given sufficient consideration in the options paper.

Consultation obligations

177 We welcome the proposal for more constructive engagement and setting out product roadmaps.

178 We are also comfortable with notice periods for material changes to existing products being prescribed - although six months may be more appropriate. If we were tracking below allowable return during a regulated period, we need to be able to adjust our non-anchor products and pricing to ensure we achieve our revenue. Mandating an overly long lead time for such changes makes this extremely difficult, if not impossible.

179 The introduction of new products must not be subject to such timing constraints. New products are available to all RSPs, our market context is dynamic and agility and flexibility is needed to achieve both policy and commercial objectives.

180 We will build up a constructive engagement model for the post 2020 environment subject to this review, including that we will:

180.1 consult on price and non-price terms for non-anchor services;

180.2 give at least 6 months' notice for price changes or material non price terms or withdrawal (reserving the right to shorten that notice period where the changes are beneficial to RSPs or consumers); and

180.3 publish an ongoing product road map.

Pricing the initial set of anchor products

181 The options paper sets out no proposal for how the economic regulator is to approach the pricing of non-cost oriented anchor products.

182 Consistent with continuity aims of the anchor products, for the initial set, clear legislative direction can be given that prices for anchor products should start with those in place at 2020 with annual CPI price paths. CPI is well understood in utility regulation consistent with the retail TSO and in line with expectations. This approach supports no price shocks for consumers, no revenue shocks for regulated suppliers as well as ongoing investment for consumers.

183 We assume that specifications and non-price terms could be transferred over for the initial anchor product set – i.e. relevant reference offers as exist today from STDs and UFB wholesale agreements. Amendments may be needed for any changes to anchor specifications as compared to today.

184 Articulating policy choices and outcomes and specifying key requirements for the initial anchor product set (i.e. product specifications and pricing approach) are required in any implementation option if continuity and stability are to be achieved.

185 Appendix Four provides a framework for consideration of how to do this in a stable, predictable and timely way.

Geographic averaging of prices

186 As in 2011, this is an important policy choice. The proposal to retain geographically averaged pricing supports continuity through a change to the BBM framework. It supports the policy aims of anchor products and digital inclusion.

187 Generally we support geographical averaging while noting that the proposal in the options paper won't support national consistency as it is averaging on a network basis.

188 The third implementation option, if national consistency is preferred, see Chorus and LFCs provide the same set of anchor products. But in such a situation the revenue caps and approach to non anchor products would be appropriately different.

189 Competition, if it emerges, will be from opportunistic deployment in high density, high value areas. Geographic averaging of non-anchor product prices may prevent the regulated supplier responding to this competition. This may be a conscious trade-off policy makers are making in setting a policy of geographic averaging but it does mean three things:

189.1 the risks of regulatory error are high and the risks of motivating ongoing investment in high quality resilient fixed line broadband is increased;

189.2 the rationale for an asymmetric wash-up is incompatible. A position that a regulated supplier must not be insulated from competition "at the fringes" and a regulated supplier should be prevented from competing "at the fringes" are irreconcilable;

189.3 the ability to recover shared costs may also start to break down; and

189.4 it's important that deregulation occurs in a prompt way in response to emerging competition.

190 For completeness we note that in any non-access services are included in the BBM (such as backhaul) these would need to be excluded from geographic averaging requirements consistent with today's situation.

191 Policy makers may also wish to consider some potential exceptions. For example, not foreclosing commercial initiatives that might enable upgraded broadband in a community that would otherwise be uneconomic to serve (e.g. charging higher prices in a rural area if a community agrees to make fibre to the home more economic).

Cost oriented layer 1 unbundling

192 We have consistently said that unbundling of GPON fibre is a policy choice. It involves different trade-offs, not just for regulated suppliers but for the level playing field for all RSPs and consumers. It has not been subject to cost benefit analysis and there will be additional activities and costs that will need to be recovered.

193 We have built our UFB network in such a way that it can be unbundled, and we're happy to offer a layer 1 GPON product on sensible commercial terms as we have been with point-to-point fibre for the past five years. But direct regulation of cost-based layer 1 services is a feature of the legacy regime – which the options paper rightly describes as no longer fit for purpose. The ladder of investment and cost based STDs were important in the context of encouraging network competition with a vertically integrated supplier that had incentives to restrict access. They are not compatible with a structurally separated, utility-provider world.

194 Treating layer 1 fibre as a non-anchor service will:

194.1 enable us to set prices for all services (layer 1 and layer 2) on the basis of the value of those services rather than a narrow cost-oriented basis, which is particularly appropriate given the near-impossibility of deriving sensible cost-oriented prices in a BBM framework;

194.2 be consistent with the regulatory objectives by enabling a differentiated product set and a more efficient price structure, as a higher proportion of fixed costs will be paid by those consumers with a higher willingness to pay; and

194.3 avoid the significant burdens on resources and costs that would result from any process to determine a cost-oriented anchor price. Applying a cost orientation methodology would add significant complexity and uncertainty in the asset valuation methodology and cost allocation methodology, especially if the regulator determined that it was necessary to establish a separate RAB and/or cost centre for the unbundled layer 1 fibre service.

195 For completeness, we note that it is not coherent to talk about a cost oriented layer 1 GPON product as an economic anchor.

The legislative test for intervention at layer 1

196 The introduction of a cost oriented price-capped layer 1 anchor product would represent a fundamental reversion to previous regulatory policy. Therefore the circumstances in which such an intervention can be made are important.

197 The options paper recognises that a legislative test will be required for the introduction of this anchor product. The options paper suggests that such a test may be "if UFB providers are not innovating at the layer 2 level".[37] We agree with the premise of this test – that unbundling is not desirable to specify per se, but rather might be used as a means to deliver benefits to consumers if (and only if) open access layer 2 services are demonstrably failing to do so.

198 A decision to set a cost oriented layer 1 anchor product would be an intervention at least as significant as a change to the form of control.[38] The fact this would represent a change in policy, and the significance of the consequences of doing so for consumers as well as suppliers, means this should be a decision reserved for the Minister.

199 We have set out in detail a proposed test for intervention in Appendix Five to this submission.

[37] Options Paper, section 6.4.3.

[38] In fact, such an intervention may necessitate changes to the form of control as it is not clear to us how the proposed hybrid form of control could work in the presence of a cost oriented layer 1 product.

PART E: IMPLEMENTATION OPTIONS AND TRANSITION

Given ongoing investment, market dynamics, significant countervailing buyer power, timing issues and that all regulated suppliers should have the same regime applied, the backstop option (airports model) should be favoured. We note that it is not actually a "backstop option" – it involves input methodologies and information disclosure which provide the right incentives with the threat of the full BBM model.

A third implementation option is backstop option + price capped anchor products. This could assist continuity in the transition, timing issues and/or if national consistency is desired for voice, entry level and basic broadband (as well as overall coherency of everything in one BBM framework, including the TSO). There is a more timely way to achieve this option with specified key requirements for the anchor products and consistent with alleviating the burden on lengthy regulatory implementation processes, but leaving in place regulatory approval and oversight.

The full BBM model also asks too much of the regulator in the timeframe with the already clearly acknowledged risk those timeframes won't be met. We agree that specification for that situation is going to be needed in any event. We are also very concerned about the significant risks and impacts of regulatory error to the outcomes sought.

200 There's no legacy concerns about investment levels, discrimination or a non-transparent level playing field for retail service providers (RSPs). There are no concerns on excess profits – 90% of our products (the access products) are controlled today. Volatility in regulated prices and revenues got us here. There has also been substantial change in the market structure and the need for more investment to deliver on improved fixed line broadband.

201 Moving straight to a full BBM model is a heavy handed approach. The regulator would also be required to go through complex input methodology, information disclosure and price/quality determination processes – all at the same time. The discussion document as it stands leaves many things open to wide debate and little tools for the regulator to narrow the debate. It is not clear that the implementation must actually ensure that no price or revenue shocks occur – let alone supporting the complex transition and market environment as well as the desire for increased investment that will deliver high quality resilient broadband to more New Zealanders.

Consistent application of the regulatory framework

202 The reasons for applying a "full" BBM-based price-quality control to Chorus and a "backstop" BBM-based information disclosure approach for LFCs are unconvincing.

203 For example, the options paper refers to HFC competition and risks for LFCs but makes no mention or consideration of the same for us in Wellington. We don't think that sufficient consideration has been given to the complexity of the environment and therefore the high risks of regulatory error. Those risks are significantly higher for us in that we are still working through demerger transitions and copper to fibre transitions. The regulatory framework needs to support, rather than frustrate,

complex operational, technical, customer and financial management of this environment. This is our core and sole business. We have the right incentives to get these things right and improve along the way.

204 The "backstop" option isn't a backstop at all – airports are likely to consider their businesses to be highly regulated rather than subject to a regulatory backstop - with thousands of pages of regulatory material involved in the way BBM regulation is done under Part 4.

205 An information disclosure approach would:

205.1 be consistent with acknowledging that many legacy issues have been resolved – no issues with investment, lack of wholesale products or new product proposals, no discrimination concerns;

205.2 acknowledge that the real issues now and going forward are the need for simplicity, stability, transparency and certainty to make long term investments and innovations in essential infrastructure services. This includes overtly recognising the legitimate commercial interests of those supplying the investment and the matters set out to them in the section 19A Government Policy Statement in 2011 as well as fair pricing for consumers;

205.3 acknowledge the dynamic nature of both consumer demands and the technology used to supply connectivity and give the market a chance to operate before deciding if more intrusive regulation is required;

205.4 continue to be underpinned by fit for purpose open access requirements that will continue to ensure a level playing field for retail competition and choices for consumers;

205.5 acknowledge that the New Zealand market is characterised by the presence of at least two large RSPs;

205.6 provide incentives for good conduct by the threat of further regulation; and

205.7 relieve a great deal of pressure on timing of the work required for transition including avoiding many of the issues that are likely to be controversial, heavily disputed and which will incur a great deal of cost for all concerned.

A third implementation option

206 The additional option we have proposed is to have the backstop option (airports model) and set anchor products. We have discussed the anchor products in Part D. We offer up a sketch for an expedient, precedented approach on how to get there in Appendix Four.

207 This option follows the best regulatory practice guidance on page 17 of the options paper - only imposing regulation where there is clear necessity and proportionately, as much predictability as possible, more flexibility, transparency, supporting technology neutrality and accountability.

Information disclosure

208 We accept that information disclosure is part of the way things are done.

209 Information disclosure would be aligned with the combined copper and fibre model.

210 We would welcome the opportunity to discuss and develop a more workable and purposeful information disclosure regime than that currently in place under the Telecommunications Act.

211 As we have raised before, accounting separation in the past was expensive and useless. The current information disclosure regime in the Telecommunications Act is a compliance exercise that lacks purpose. It will be important for the information disclosure rules to be settled sufficiently ahead of 2020 and that we work through data and systems matters.

212 We agree that only summaries of non-commercially sensitive information should be published.

Changes to form of control

213 Unfortunately the suggestion in the options paper that the proposed new model could be substantially altered after the first regulatory period undermines messages of potential stability and coherency.

214 If this is considered to be a real possibility (and we don't think it should be) that is further reason to take a cautious and proportionate approach to implementation.

215 The options paper proposes that the regulator has the ability to investigate and recommend to the Minister whether the form of control should change (including whether a price cap model is desirable). The power would start from the beginning of the second regulatory period (i.e. 2025). The options paper proposes that the regulator could exercise the power any time that circumstances require (but presumably at or after 2025) and would be able to recommend the date from which the price caps approach would apply.

216 We understand the need to ensure that the regulatory system remains fit-for-purpose but we think the options paper contains too many reviews and resets. The effect will be to undermine the long term certainty the Government is seeking to achieve by introducing a BBM, and we are seeking by supporting a move to a BBM.

217 In addition to the proposal for a review as to the form of control, the options paper contains proposals for resets and reviews to occur as follows:

217.1 a regulatory reset at the end of the initial regulatory period in 2025, followed by another regulatory period of up to five years;[39]

217.2 a review by the regulator of whether the anchor products need to be updated.[40] Such review may occur before each subsequent regulatory period (likely from 2025 onwards); and

217.3 a review of whether a price-capped Layer 1 fibre service should be introduced at a price set by the regulator. Such review may occur at any time including during the initial regulatory period.[41]

218 Each of these resets/reviews are very significant events. The form of control review would be potentially the fourth review to occur within a five year period following the implementation of the BBM model under the 2020 reforms. Four potential reviews in a five-year period is too many and will undermine the certainty sought to be achieved by moving to a BBM model. Even if the reviews do not occur or, do not result in any change, even the potential for change will undermine the certainty sought to be achieved through the BBM model.

219 We agree that the form of regulatory intervention should be determined by the Minister, on the recommendation of the regulator, as is the case for Part 4. We agree there should be a high hurdle that the regulator needs to meet before recommending a change in the form of control. In our view a change should also only be made if it would satisfy a cost-benefit analysis as is required for intervention under section 52G of the Commerce Act.

Transitional provisions are required

220 We have significant concerns about the regulator's ability to implement full BBM regulation by 2020 – which the options paper also raises. Even if it can, this will leave little time for the industry to adjust and translate the regulator's views into the market for consumers.

221 We agree that transitional measures for this situation have to be provided for.

222 In the event that the regulator was unable to implement a new environment on time, absent direction otherwise, we would continue to offer nationwide anchor products with small price increases consistent with today as follows:

222.1 the continuation of commercial baseband voice products extending the regulator determined price paths out beyond 2020 for UCLL/UCLFS;

[39] This is based on option 1 as set out in section 7.1.1 of the options paper. If the backstop option is selected as described in section 7.1.2, price-quality regulation would not be implemented unless an intervention test is triggered.

[40] Options Paper, section 6.4.4.

[41] Options Paper, section 6.4.3.

222.2 the continuation of UBA STD services assuming the determined price path continues (we assume the UCLL STD would have been revoked via legislated sunset clause at 1 January 2020); and

222.3 the continuation of 30/10 and 100/20 UFB services extending the CFH approved price paths forwards.

223 If the policy decision is for price-quality regulation to apply from 2020, but the regulator is unable to complete detailed determinations by that date, the proposal is that price and non-price terms for wholesale products in the market in December 2019 (which will likely to be the equivalent of the proposed anchor product set) be temporarily 'frozen' with indexation. The feasibility of this proposal depends on the detail - which products are affected and the parameters of indexation - but if it resembles what we have proposed above then it would be workable.

224 So that the industry has certainty as to the form of regulation and the prices that will apply at 2020, the legislation should specify a time by which the regulator must have completed price-quality determinations (perhaps 30 June 2019), with the effect of the transitional arrangements applying from 2020 if determinations are not complete by the specified date.

APPENDIX ONE: LEGAL FRAMEWORK

We support the proposal to mirror the Part 4 purpose statement but subject two improvements to confirm:
- the central regulatory compact that investors are entitled to have an expectation of a reasonable return on their investments; and
- that regulation should be implemented in a way that providers will not find it unduly difficult to finance the provision of regulated services.

The merits review regime in the new Part of the Telecommunications Act should include improvements identified from the Part 4 process, so that the best review process is in place for the first, and likely most important, regulatory determinations under the new BBM framework.

Purpose statement

1 We agree that a purpose statement should apply to the new Part to the Telecommunications Act. The new regime should reflect standard utility regulation settings, which seek to promote the outcomes that would arise in workably competitive markets, rather than seeking to promote competition. Any purpose statement for the new regime should reflect this.

2 We agree with the proposal to largely replicate section 52A in the new part of the Act. This should be adequate to deal with all aspects of the new regime, given the move away from promoting competition to utility style regulation. There are two clarifications that we suggest be made to section 52A to confirm:

2.1 the central regulatory compact that investors are entitled to have an expectation of a reasonable return on their investments; and

2.2 that regulation should be implemented in a way that providers will not find it unduly difficult to finance the provision of regulated services.

3 It is worth bearing in mind the role of a purpose statement. A purpose statement is not determinative of detail in the specification of the relevant regime, or a substitute for getting the policy setting rights. More important in this respect are the detailed rules the regime establishes, along with any Government Policy Statement.

4 The role of section 18 in Part 2 of the Telecommunications Act is illustrative of this. In the FPP process the Commerce Commission did not consider that section 18 mandated particular regulatory choices in all cases, and the High Court and Court of Appeal largely confirmed the Commission as the "expert arbiter" of section 18.[42] Similarly, in the context of Part 4 regulation to date, the relevant purpose statement has not

[42] *Chorus Limited v Commerce Commission* [2014] NZCA 440.

required particular regulatory choices on topics such as asset valuation.[43] A purpose statement cannot replace policy choices in a regulatory regime.

5 However, the purpose statement does have importance as guidance in areas of discretion, and can add weight to particular regulatory choices. As a matter of good regulatory design, the purpose statement of the Act should be aligned with all provisions to which it applies:[44]

> *Purpose provisions help users of legislation to understand the particular Act or part of an Act to which the provisions relate. They are operative provisions of the Act and should be drafted so that they are genuinely helpful…[Drafters of legislation must] ensure that there is no conflict between the purpose provision and a later specific provision. Such a conflict is unlikely if the drafter keeps in mind the following general distinction: the purpose clause explains why the law is being enacted; the remainder of the text shows how this purpose will be implemented.*

6 We generally support the proposal to regulate us as a utility in line with Part 4 of the Commerce Act, so it is appropriate that both the purpose statement and the detailed provisions of the new regime reflect the regulation of markets of the kind that are regulated under Part 4. That means that:

6.1 a purpose statement based on section 52A of the Commerce Act would be appropriate; but, equally

6.2 it would not be appropriate for the new regime to contain provisions that are not focused on outcomes but instead on the promotion of network competition. This would require a different purpose statement than that which is proposed.

The proposed purpose statement

7 As to the detail of a purpose statement based on section 52A of the Commerce Act, we:

7.1 agree with the terminology – while we would prefer the use of "consumers" rather than "end-users", we acknowledge that end-users is an existing concept within the Telecommunications Act; and

7.2 suggest that the reference to an outcome of workable competitive markets being that suppliers have incentives to innovate and invest (section 52A(1)(a)) is clarified to confirm:

(a) the central regulatory compact that investors are entitled to have an expectation of a reasonable return on their investments; and

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43 *Wellington International Airport Limited v Commerce Commission* [2013] NZHC 3289.

44 New Zealand Law Commission, Legislation Manual: Structure and Style, May 1996, 11. See also Legislation Advisory Committee Guidelines: Guidelines on Process and Content of Legislation, 2014 edition, October 2014, 12.1.

(b) that regulation should be implemented in a way that providers will not find it unduly difficult to finance the provision of regulated service. This is sometimes referred to as the duty of "financeability" in the United Kingdom.[45]

8 These last amendments could be achieved by adding the following wording (underlined):

> …have incentives to innovate and to invest, including in replacement, upgraded, and new assets, including by providing investors with an expectation of a reasonable return on their investments in a manner such that suppliers will not find it unduly difficult to finance the provision of regulated services;

9 The first of these clarifications is to confirm the central regulatory compact: that investors are entitled to expect a reasonable return on their investments, and that it is this expectation which provides incentives to innovate and invest. The language proposed is taken from s157AA of the Telecommunications Act, which we think appropriately expresses the essential compact.

10 The second of these clarifications introduces financeability as a separate, independent consideration to the regulatory exercise. In the United Kingdom, the goal of the duty of financeability is to require a regulator, in administering price control, to take account of the ability of a regulated entity to raise finance on reasonable terms. This is of course balanced by other objectives, including that of avoiding incentivising inefficiency (which could provide a safeguard in relation to, for example, avoiding a company making inefficient decisions about finance structure). An efficiency goal is already included in section 52A.[46]

11 The separate inclusion of this purpose recognises that, in industries characterised by large scale lumpy capital investments, the cash flows generated by a standard implementation of a BBM may be inadequate to enable the regulated supplier to raise debt on reasonable terms to finance their investments, even if those investments and capital raising practices are efficient. In practice, this would require the Commission to cross-check regulated return against financeability requirements to ensure that the return is adequate to maintain an investment grade credit rating.

12 Currently under Part 4, there is arguably no ability for the Commission to consider the actual ability of regulated entities to finance their activities.

13 While, as we note above, it is important to avoid incentivising inefficiency, including in relation to financing, we think that enabling the regulator to take account of regulated entities' actual capital structures would be beneficial to the workability of the regime, as it has proven to be in the United Kingdom. While by 2020 the significant capital investment programmes associated with UFB1 will be completed, there will remain the

[45] The duty appears in the following UK legislation: Electricity Act 1989, Gas Act 1986, Water Industry Act 1991, Transport Act 2000, Civil Aviation Act 2012 and Railways Act 1993.

[46] Commerce Act, s 52A(1)(b).

potential for other significant programmes in the future. This is therefore a useful tool for the regulator to have in its regulatory toolkit.

Copper to fibre migration

14 We support the proposal that we lead the future withdrawal of copper services when it makes sense to do so. It has been consistent policy that we are in a consumer led migration.

15 We support a regulatory framework that enables us to withdraw copper with appropriate notice being given when it makes sense to do so in the next five to ten years.

16 Consistent with that, consumer interests, and to support a principled new regulatory framework, wholesale TSO obligations should shift to LFCs offering UFB services. We note that some have already completely finished their build.

17 What is required of fibre needs to be clearly set out if there are concerns - and this further reinforces the need to modernise the TSO by transferring it to the UFB providers in their areas.

Legislative vehicle

18 We support the BBM regime being enacted in a new Part of the Telecommunications Act ensuring that all legacy components are removed.

Backdating and clawbacks

19 We support the provision for mandatory claw-backs for utility style regulation of fixed line services, consistent with the position adopted under Part 4 of the Commerce Act. We would also support the position under Part 2 of the Telecommunications Act being clarified, although we acknowledge that this raises potentially different issues.

20 As our submission explains, an essential feature of the regulatory compact for utility regulation in New Zealand is that investors have an expectation of achieving the regulated return on their investments – but no more. If it is determined on appeal that the regulator has, as a result of an error, provided for a return that is either too high or too low, then the regulatory compact requires that both suppliers and consumers be held whole against that error.

21 To put this another way, the purpose of utility regulation is to promote the long term benefit of consumers, by promoting outcomes consistent with outcomes in a workably competitive market. If on appeal it is determined that different input methodologies would better promote those outcomes (because those outcomes involve a requirement of a higher return on investment), then the purpose of the regulation will only be served if the supplier obtains that return for the full regulatory period.

22 Equally, where an appeal results in a lower revenue or price for the regulated supplier, consumers should be held whole against any past over-recovery by the supplier. If this is not done, then an excessive profit will have been made by the supplier, contrary to the regulatory compact.

23 The Commission has sufficient tools under Part 4 to enable it to implement claw-backs to avoid undue financial hardship to the supplier or price-shocks to consumers.

24 The options paper refers to the debate during the copper pricing process about whether the final price should replace the initial price determined either from the date of the initial price determination, or only from the date of the final determination.

25 We think the issue of claw-backs of over-or under-recoveries following an appeal in a utilities style regulation is different from the issue of backdating under Part 2. The purposes of the regulation, and the regulatory compacts, are different. The result is that the debate over the merits of backdating in the FPP process does not have much relevance to the policy settings for utility regulation.

26 However, we agree that the silence of Part 2 of the Telecommunications Act created significant and unhelpful uncertainty for the industry. In the FPP, we said consistently that backdating of the outcome of a pricing review determination was mandatory under the Act, consistent with the Court of Appeal's earlier interpretation of the relevant provisions.[47] However, the Commission considered that it had a discretion whether to backdate, and was divided on the question whether it was appropriate in the particular circumstances of our copper-based services.

27 Putting to one side the merits of the Commission majority position, it is clear from the history that different Commissioners can form a different view on both the power to backdate and its application in any particular case. We do not think that such a significant issue should depend on this. Instead, it would be better for all industry participants to have certainty on the implications of a pricing review application.

28 For this reason, we would therefore also support clarification of the application date for final prices reviewed under Part 2 of the Act, for those services that remain regulated by Part 2.

Merits review

29 There is no good rationale for having merits review for some regulatory decisions or industries and not others. Numerous submissions have been made by many on this over many years.

30 Merits review has most value for incentivising accountability on the substance as well as the process of regulator decision making. Governance and accountability up front, rather than at the end of the process when harm can occur in the market, is also critically important.

31 Ideally changes to the merits review provisions of Part 4 of the Commerce Act should be joined up and made into the Telecommunications Act also. MBIE considers policy across both. If for some reason they cannot be made to work on the same timetable,

[47] *Telecom New Zealand Ltd v Commerce Commission* CA75/05, 25 May 2006 at [44].

changes resulting from the Part 4 process should also flow through to the Telecommunications Act for consistency.

Improvements that could be brought through

32 In MBIE's evaluation of the Part 4 appeals process to date, significant concerns have been identified, following the testing of that regime in the merits appeals from the Commission's initial Part 4 input methodology determinations.[48] A number of straightforward, but important improvements have been identified.

33 We agree that the Part 4 appeals regime can be improved to better achieve accountability and promote the efficient and robust consideration of appeals. In particular:

33.1 Standard of review: the "materially better" threshold for an appeal to the High Court to succeed, has been interpreted by the courts as imposing a high standard for intervention. This has the effect of rendering the merits appeal right almost redundant other than very clear cases of error, and reducing the effect of the appeals as an accountability mechanism. The policy rationale for this standard – that parties may otherwise game the process or take opportunistic points – can be addressed in a more proportionate way through the standard appellate procedure.

33.2 Process and rules: the requirement that merits appeals be conducted on "closed record", consisting solely of the material that was before the Commerce Commission when it made its determinations, has proved problematic in practice. We think the closed record is potentially harmful to processes and outcomes, because it prevents the High Court having access to full analysis of the issues, including any final Commission advice. Again, the original policy rationale for this requirement - that parties would game the system by "holding back" evidence at the Commission stage and producing it on appeal – can be addressed more proportionately through the standard appellate procedure. We think that "holding back material" is unlikely given the significant stakes for regulated entities.

34 While we recognise that getting an improved process into the Telecommunications Act will add complexity and work to the post-2020 review, it is justified by the importance of ensuring that appropriate accountability mechanisms exist for the broad regulatory powers that are proposed to provide to the regulator. As the Productivity Commission has recognised, an effective merits review regime is an important part of the regulatory compact, and warrants the effort to get it right first time, and once.

Extending merits review to the existing regulatory framework

35 The options paper says that merits review for fixed line regulatory decisions is justified given their long-term implications (particularly input methodologies) but that it is not justified for the remaining part of the Telecommunications Act. We don't agree with

[48] MBIE, Part 4 of the Commerce Act 1986: Merits Review Regime Evaluation: Summary Findings from Interviews with Stakeholders, April 2016.

the differentiation justification. These issues have been heavily submitted on in the past.

Role of the Telco Commissioner

36 Our views on good governance in regulatory institutions have been set out in previous submissions including to the Productivity Commission.

37 Consistent with those, we agree that a standalone Commissioner role is not best practice. We appreciate that decisions are made in divisions of Commissioners. Nevertheless, it would be sensible to review the role of the Telecommunications Commissioner as proposed.

Regulation of non-BBM services

38 We don't have strong views on the proposed changes to the Schedule 3 process as our services will be regulated under the new BBM framework.

39 We would note that the suggestion the regulator should have the power to set an interim price for a potential regulated service to apply during a Schedule 3 investigation appears concerning.

Dispute resolution

40 We support the submission of the TCF on customer complaints and dispute resolution.

41 The TCF is considering how the Customer Complaints Code and Land Access Dispute Resolution scheme could come together to provide a single point of contact for consumers and third party property owners. This package will clarify the responsibility of wholesale network operators under the TDRS, and ensure that all consumers can make a complaint to the independent TDRS scheme agent about issues of service quality by TDRS members, including services provided by wholesalers.

42 We note that the proposal comes at a time when we are facing well-publicised customer service challenges, in particular with regard to fibre installations. We are not shying away from these challenges – we should be doing better and improving the quality of our dealings with consumers is our number one priority. We've already taken a number of steps including offering RSPs install support (where we communicate with home and small business consumers, during the entire fibre install process - from order receipt, to the commissioning of a connection); and making available an order tracker on our website (optimised for smartphones) through which consumers can monitor the progress of their order.

43 It needs to be borne in mind that these challenges are occurring in the context of a massive infrastructure build project and demand that has exceeded even the most optimistic forecasts. This doesn't relieve us of any responsibility for making sure we provide a high-quality service. But we need to remember that we are crafting a regulatory framework for after 2020 when the initial UFB build project will have finished and the industry will be stabilising. Therefore we need think carefully about whether the problems of today will still be such an issue in 2020 that regulatory intervention will certainly be required.

APPENDIX TWO: ALTERNATIVE VALUATION APPROACHES

1 In Part C of this submission, we set out the reasons why we consider a line in the sand methodology the most appropriate methodology for determining the initial RAB. The options paper identifies a number of other alternative methodologies, which we discuss below.

Replacement cost valuations

2 An alternative would be to require fresh replacement cost valuations of our copper and fibre networks.

3 Incenta advises that replacement cost is a common form of valuation at the start of a new regulatory regime. The basic reason is that replicating the outcomes expected in a hypothetically competitive market is an inherently fair and reasonable thing to do. It is reasonable for regulated sectors to be treated no more harshly than unregulated sectors.[49]

4 ODRC (or DORC in Australia) has been the most commonly used valuation technique in New Zealand and Australia (either as a result of the application of the ODV methodology or the straight application of the ODRC methodology). ODRC has been used to determine regulatory values universally (or almost universally) for the regulated entities in New Zealand (with the more recent disputes relating only to whether a *new* ODRC value should be performed) and as the principal valuation method for 19 regulated assets in Australia.

5 However, Incenta notes that when applying a replacement cost valuation approach it has been common for regulators to check that it delivers outcomes that appear to be objectively reasonable − typically with respect to a certain outcome for prices.[50] Again this emphasises policy is to set outcomes and context.

6 It is also relevant that this approach would be long, complicated and result in disputes. The industry has recently spent several years debating a TSLRIC valuation. The replacement cost approach would re-commit the industry to the same debates of technology choice, optimisation, sharing, and so on.

7 The outcomes are unlikely to advance the policy objectives as well as the line in the sand approach based on current prices. Requiring new replacement cost valuations is unlikely to produce outcomes consistent with investor expectations, and consistent with the current relationship between us, RSPs, and consumers. It is also less likely to avoid price and revenue shocks, unless by chance. In short, it is unlikely to arrive at an outcome that is seen by all parties as fair and reasonable, and reflective of current relationships.

[49] Incenta Report, pages 8-9.

[50] Incenta Report, page 9.

Unrecovered Investment Value

8 Incenta observes that it has been common for regulators to state that a desirable objective for the initial RAB is the value of the investment that has been incurred and remains unrecovered today. That is, to ask the question: given the initial cost of the asset and the net revenue that has been received to date, what residual value is required to deliver a NPV=0 for the project?[51]

9 The difficulty is that when applying regulation to a business part way through its life the information to answer that question is not available. Further, valuations that might be suggested as a proxy, such as accounting valuations, are likely to be significantly wrong (we turn to the relevance of accounting valuations specifically – the so-called "depreciated actual cost" below). Once an adjustment is made for economic depreciation (not accounting depreciation) the unrecovered value is often expected to be significantly higher (and can be significantly higher than replacement cost).[52]

10 One option that was considered was to set the initial RAB for the fibre assets to reflect the unrecovered cost of those assets. However, such an approach would not be as straightforward as it may seem and we do not think that it offers advantages over a "line in the sand" valuation.

10.1 first, the value of the initial losses incurred on the UFB network – something all parties expected as costs outpace revenues on a newly built network – would also need to be added to the valuation in order to keep Chorus whole. This is consistent with the capitalisation losses framework that applies to the NBN in Australia; and

10.2 secondly, the prices for fibre services recover both the dedicated fibre assets as well as providing a return on a share of the assets that are shared with copper services (with the TSLRIC prices for copper services similarly only recovering a share of shared costs from copper services). Any calculation of the recovery of UFB costs would require the valuation of assets shared between the two networks to be resolved.[53]

Depreciated Historic (or Actual) Cost

11 The options paper discusses Depreciated Actual Cost (DAC) as one of three valuation methodologies that may be applied.

12 As a matter of principle and practice DHC / DAC is rarely used in BBM regulation. It is also highly unlikely to measure the unrecovered investment made by the investor.

13 The lack of robust data on prices, costs and appropriate returns over the full life of the entire network makes it too difficult to estimate with any confidence the extent to which the asset owner has recovered its capital investment.

[51] Incenta Report, page 12.

[52] Incenta Report, page 19.

[53] Incenta Report, page 12-13.

14 Calculating a true DAC would require information on the original cost incurred, as well as the costs that we have recovered in revenues, to give a Net Present Value of zero over the asset's life. This is particularly impractical for our copper assets. There is incomplete information about our past costs, as a result of privatisation. Also, because our services have only recently been provided on a structurally separate basis, identifying our revenues pre-demerger will be an inherently arbitrary exercise.

APPENDIX THREE: ASYMMETRIC WASH-UP PROPOSAL

1 We explain in this appendix why an asymmetric wash up:

1.1 would be inconsistent with the regulatory objectives, including by discouraging incentives for efficient investment and innovation;

1.2 is unorthodox and not supported by existing regulatory practice;

1.3 would not address limited network and future unknown competition; and

1.4 would not incentivise responsiveness to market demand.

Inconsistency with the Government's regulatory goals

2 The proposed asymmetric wash-up would be inconsistent with the objectives for the regulatory framework identified by the options paper:

2.1 Promotes competition for the long-term benefit of consumers (or where there is no effective competition, promotes outcomes consistent with outcomes in competitive markets): The options paper does not justify how an asymmetric wash-up would promote network competition. In fact, a regulated supplier would have reduced incentives to compete vigorously to make back that under-recovered amount in the following regulatory period, given the maximum allowable revenue for that following period would not have been adjusted upwards. That under-recovered amount would effectively be written off.

The options paper suggests that a consequence of competition at the fringes might be higher prices. If there is competition, however, then higher prices would be the opposite of what would be expected in a workably competitive market. By acting on the assumption that prices would increase, an asymmetric wash-up would promote outcomes *inconsistent* with outcomes in workably competitive markets.

It's important to recognise that any profit resulting from an upwards adjustment to maximum allowable revenue through a conventional (symmetric) wash-up is, by definition, not excessive profit – it is profit that the regulated supplier was recognised as being entitled to, but failed to recover, in a previous regulatory period.

2.2 Encourages efficient investment for the long-term benefit of consumers: Incentives for investment would be diminished under an asymmetric wash-up, because the overall effect of the asymmetry will be to reduce the rate of return below the estimated cost of capital – discouraging efficient levels of investment and innovation.

Firms in competitive markets seek to recover the costs of their entire investments. That is, they operate in a way that allows prudent and efficient investments and poor investments to be dealt with together.

In a similar way, firms in competitive markets will expect that this cost recovery may not be spread equally over the lifetime of the asset. The proposed asymmetric wash-up removes even the possibility of any such later recovery.

A regulatory approach which penalises regulated suppliers for decisions that would be (all things being equal) exactly the same investment decisions a competitive firm would have made would be sub-optimal and discourage efficient investments which would have been for the long-term benefit of consumers.

2.3 Supports innovation in communications markets: The need to support innovation is particularly salient in telecommunications, where many investments are made to support or introduce innovative new products with uncertain demand. This is a clear point of difference with many other regulated utilities, where the majority of investments tend to be incremental replacements or upgrades of existing assets, for which a return is almost guaranteed due to past historic knowledge and the nature of those services.

It would clearly not support innovation to legislate for an outcome where investors are reluctant to invest in innovations on the basis that not only will their returns be capped-out if the investment is more successful than expected, but their investment will be un-recoverable if it is less successful than expected (albeit well-intentioned and efficient based on the information available at the time).

If the proposal is driving at concerns of protection against poor investment, the concern is unfounded. A symmetric wash-up in orthodox BBMs does not allow regulated suppliers to seek a return on those poor investments by imposing higher prices on the consumers of more successful assets. As major capital expenditure proposals will be reviewed by the regulator, a separate and robust efficiency check will be in place.

Inconsistent with best regulatory practice

3 As the options paper correctly notes, a symmetric wash-up is the "typical application" under a revenue cap model.[54] There is no justification for departing from this orthodox approach taken by other regulators when regulating fixed access telecommunications services.

4 The only regulatory precedent cited in the options paper in respect of the proposed asymmetric wash-up is an "emerging views" document published by the Commission as part of an earlier stage of the review of the Part 4 input methodologies. The options paper notes that the Commission considered imposing limits on EDBs rolling

[54] Options Paper, page 45.

over under-recovery as a way to mitigate the exposure of consumer to demand risk under a pure revenue cap approach.[55]

5 However, the Commission's reasons for doing so, and its most up-to-date proposal on this issue, are materially different to the asymmetric wash-up proposed in the options paper. The Commission's earlier proposal does not offer any justification or precedent for the asymmetric wash-up proposed in the options paper.

6 Much more limited in scope: The Commerce Commission's proposed wash-up for EDBs is largely symmetric, in that it generally provides for wash-ups of both over-recovery and under-recovery, subject to a fact-specific upper limit.

7 Importantly, the Commerce Commission's proposed wash-up for EDBs is explicitly intended to allow a positive wash-up where under-recovery is as a result of forecast errors:[56]

> *"This cap will not prevent an EDB from fully pricing up to its forecast allowable revenue and the EDB will not forfeit any of its allowable revenue as a result of errors in its forecasts of quantities, pass-through costs or recoverable costs.*
>
> *Any repeated under-recovery of allowable revenue will accumulate from year to year and be reflected in the wash-up balance. The wash-up balance will form part of the forecast allowable revenue. Any positive wash-up balance will therefore be available, subject to other constraints on pricing, to a supplier so that it could increase its prices to recover previous under-recoveries."* (emphasis added)

8 Aimed at different (electricity-specific) fact scenario: To the extent that the Commission does propose a constraint on full recovery of under-recovered allowable revenue, this is intended to address an electricity-specific fact scenario, namely voluntary undercharging to build up a large positive wash-up balance:[57]

> *"a large credit amount may build up in the over/under balance from EDBs intentionally undercharging. A supplier might not fully charge its consumers up to the limit of its allowable revenue. Such voluntary price reductions could result in a large positive balance building up in the wash-up account, potentially over many years, which could raise concerns about the potential for subsequent price increases to drawdown that balance".*

9 There are no similarities between the Commission's concern of 'voluntary undercharging' by EDBs and the options paper concern of 'competition at the fringes' in telecommunications.

10 Already dismissed for other markets: The electricity-specific nature of this concern is underlined by the Commission's explicit decision not to apply this 'cap on voluntary undercharging' to gas transmission businesses,[58] and its further narrowing of the

[55] Footnote 15 at page 46 of the Options Paper, cross-referencing to Commerce Commission, Input methodologies review - Emerging views on form of control (February 2016). See http://www.comcom.govt.nz/dmsdocument/14109 at pages 8-9 and 17.

[56] Paras 123-124 at page 30 (page 150 of consolidated package).

[57] Para 120 at page 30 (page 150 of consolidated package).

[58] Para 169 at page 40 (page 160 of consolidated package).

criteria so that this cap might apply only to EDBs who meet "certain ownership criteria" (those potential criteria are not discussed further).[59]

11 The options paper, in its support for the proposed asymmetric wash-up mechanism, suggests that regulated suppliers should fully bear the effects of competition. However, this is inconsistent with approaches taken by other regulators.

12 For example, in its final decision on the Fixed Access Determination for fixed line services, the ACCC found that any reduced demand for fixed services, including as a result of fixed-to-mobile substitution, should be shared proportionately by all services using the PSTN: [60]

> *"the effect on unit costs of declining demand for fixed line services that is due to substitution of mobile services will be shared proportionally across all users of the network. This is a change from the treatment in the 2011 FADs when access seekers did not bear a share of the costs of declining utilisation of Telstra's network that is due to consumer choice to substitute mobile services for fixed line services."* (emphasis added.)

13 And:[61]

> *"The ACCC's final decision is to adopt a cost allocation framework that fully allocates the costs of the fixed line network. A consequence of this is that the costs of declining demand due to all sources of declining demand, including mobile substitution for fixed line services, are now shared by access seekers in proportion with their use of the network. The ACCC's treatment of NBN-induced declining demand is addressed in chapter 10.*
>
> *Substitution from fixed line to mobile services by end users results in excess capacity and under-utilisation of fixed line assets. This declining market due to consumer choice results in higher unit costs for which Telstra does not have replacement revenues and which it cannot avoid in the short term. Allocation of a share of these costs through regulated charges ensures that access seekers bear a share of the costs that are due to consumer choice. This will promote competition and encourage the economically efficient use of, and the economically efficient investment in, the infrastructure used to supply the listed services.*
>
> ***The ACCC considers that Telstra's legitimate business interests are met through the revised** cost allocation framework because it is able to recover its efficiently incurred costs, including the costs of declining utilisation of its fixed line network due to mobile substitution."* (emphasis added.)

Asymmetric wash-up will not incentivise responsiveness to market demand

14 The options paper also suggests that an asymmetric wash-up account could possibly impose a greater incentive on regulated suppliers to be responsive to market demands. We think an asymmetric wash-up account would have the opposite effect: it would operate to make regulated suppliers less responsive to market demand unless there is a high degree of certainty, to the point of a guarantee, about return on investment.

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[59] Para 120 at page 30 (page 150 of consolidated package).

[60] Page xii, http://accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013/final-decision.

[61] Page 7, http://accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013/final-decision.

15 The expectation that the asymmetric wash-up mechanism will 'incentivise responsiveness' is also inconsistent with the level playing field concept. It would provide non-regulated firms with a competitive advantage – which directly conflicts with the regulatory objective in the options paper that policies and regulations should be platform - and technology - neutral.

Asymmetric risk would not address 'competition at the fringes'

16 The options paper suggests that an asymmetric wash up would avoid insulating regulated suppliers from the effects of competition and possibly impose a greater incentive on those suppliers to be responsive to market demands.

17 As we have said in this submission, the central regulatory compact of a BBM regime should not be diluted to promote network competition. This risks incoherence in the new regime.

18 There are a number of reasons a regulated supplier may be unable to recover the costs of an investment due to lower than expected revenue. This could include reduced demand resulting from competition at the fringes, but more likely causes include:

18.1 difficulties in forecasting demand and evolving patterns of demand;

18.2 pricing efficiency;

18.3 constraints from anchor product prices; and

18.4 constraints from geographic averaging.

APPENDIX FOUR: IMPLEMENTING ANCHOR PRODUCTS

1 In this Appendix we set out framework proposals for a timely and certain implementation of, at least, the initial anchor product set.

2 As discussed in the submission (and likely to be raised by others), the anchor products deliver on social policy aims. These include the availability and continuity of voice, entry level and basic broadband products' quality and prices. As such, policy makers are best placed to prescribe them.

3 There is overlap with the legacy wholesale TSO. One option is to bring that and the anchor products together in an anchor product deed. The price caps would still sit within the overall BBM framework.

4 That aside, in any scenario, it is necessary to prescribe the anchor products and how they are priced as we change from one regime to another.

Initial anchor product set

5 We propose that:

5.1 policy choices and outcomes are clearly articulated;

5.2 specified key requirements are legislated, including:

(a) a description of each anchor product;

(b) direction that ensures price and price path continuity and that there will be no price or revenue shocks.

5.3 the regulated supplier is required to:

(a) prepare the detailed product proposal in line with the specified key requirements;

(b) consult on the detailed implementation; and

(c) submit the anchor product proposals for regulatory approval.

6 The approver's role is to check that the specified key requirements have been met and that consultation has been carried out. Much shorter regulatory timeframes can be achieved.

7 The ability to decline proposals if the specified key requirements or the consultation requirements are not met. This sets incentives on the regulated supplier to get it right first time.

8 This approach has been used before in transitioning from one regime to another. It is also present as a more expedient way of achieving service offerings in lieu of full regulator-led instruments – see, for example:

8.1 Chorus and LFC open access deeds of undertaking (e.g. sections 69XB, 156AH and 156AZ);

8.2 Telecom demerger asset allocation plan (section 32 of the Telecommunications (TSO, Broadband, and Other Matters) Amendment Act 2011);

8.3 the system transition plan (clause 17 of the Copper Open Access Deed);

8.4 undertakings for the provision of a service and terms in lieu of a regulator led approach (Schedule 3A of the Telecommunications Act); and

8.5 the Telecom operational separation undertakings.

9 The anchor products − which are about continuity, availability, migration and no shocks − are a prime candidate for this type of approach. Existing terms can be leveraged and transferred with appropriate amendments. Consistent with a differentiated product range, the anchor products are not cost based. No benchmarking or cost modelling is required.

10 Clear direction could be given that prices for anchor products should start with those at 2020 with annual CPI price paths. CPI is well understood in utility regulation, exists today in the retail TSO deed and is in line with expectations on regulator determined price paths for copper. This approach supports no price shocks for consumers, no revenue shocks for regulated suppliers and supports ongoing investment that is in the long term interests of consumers.

11 For illustrative purposes, such a framework might look like:

(a) *Articulation of policy outcomes:*

(i) *Availability of voice, entry level and basic broadband;*

(ii) *Continuity of quality and fair prices;*

(iii) *Supporting a consumer led migration through a technology neutral approach; and*

(iv) *Ensuring there are no price or revenue shocks for consumers or regulated suppliers.*

(b) *Specified key requirements:*

(i) *The initial anchor products are:*

(A) *Voice only − [as specified in the options paper];*

(B) *Entry level bitstream − [as specified in the options paper];*

(C) *Basic bitstream −[as specified in the options paper];*

(ii) *Prices must be geographically averaged;*

(iii) *Price paths must start from prices that apply to equivalent products on 31 December 2019 under the UBA STD or UFB Agreement adjusted as necessary to achieve technology neutral price points with annual CPI price adjustments − provided that any adjustments must not result in price or revenue shocks for consumers or regulated suppliers.*

(iv) *The regulated supplier must consult with key industry stakeholders.*

(c) *Regulatory approval:*

(i) *The regulated supplier must submit a proposal for approval no later than [date];*

(ii) *Within [x] days the approver must accept or decline the proposal;*

(iii) *In considering this decision the approver must be satisfied that:*

(A) *The specified key requirements have been complied with; and*

(B) *Consultation has been carried out.*

(iv) *If the approver declines, written reasons must be provided.*

(v) *The regulated supplier must then resubmit an amended proposal within [x] days*

(d) *Enforcement mechanisms could be either included within the proposal or in the Act.*

12 The same legislative specification is required if a Commission determination is to be used. Any such process must be tightened to move away from the lengthy two year processes that STD processes take today.

13 A simpler determination approach – perhaps modelled on section 52P of the Commerce Act – is needed.

Reviewing the anchor products

14 We agree that anchor products should be reviewed once for each regulatory period. How that should best occur turns on the approach to the initial anchor product set.

15 However, we favour the regime shifting from regulator-led product and term design, to the regulated supplier making proposals for regulatory approval.

16 As for the initial product set, the approver would assess the revised proposal against the criteria set out in legislation to ensure proposals for the next regulatory period meet the legislated requirements.

17 If the Commission is responsible for reviewing anchor products, guidance could be considered to limit the exercise to designating existing non-anchor products. This could mitigate the burden on the regulator to design and invent new products itself. It also takes better account of market reality and is consistent with the philosophies to encourage more constructive engagement on non-anchor products.

Approach to pricing in anchor product reviews

18 If the Commission is responsible for setting the price of anchor products, it is important that the starting point for anchor product prices be the prices existing in the market, or prices based on our ability to achieve its allowable revenue. This is necessary to ensure stability and avoid future price or revenue shocks.

19 This approach is consistent with Part 4 of the Commerce Act for default price paths. Under section 53P(3) of the Commerce Act, the starting price for a supplier for the next regulatory period must be either:

19.1 the prices that applied at the end of the preceding regulatory period; or

19.2 prices, determined by the Commission, that are based on the current and projected profitability of each supplier.

20 We noted earlier our concern that if anchor products soak up too much demand, this undermines the overarching revenue cap approach by essentially resulting in a de facto price cap form of price-quality regulation. Any review of anchor products must take account of the importance of non-anchor products being allowed to comprise a significant proportion of connections.

21 The proposals in this Appendix are consistent with the options paper proposals that we are able to take a greater leadership role in product roadmaps, ongoing service development and constructive engagement. We agree we are well placed to observe changing consumer demands and we've already started our customer focus and commitment to improving customer experience. We'd be happy to discuss what policy makers may have in mind.

APPENDIX FIVE: TEST TO INTERVENE AT LAYER 1

1 The legislative test consists of certain mandatory relevant considerations (and one excluded consideration) which the Minister and the Commission would be required to take into account in determining whether the introduction of a layer 1 GPON fibre anchor product would satisfy two criteria: the first of which relates to the purpose of the proposed regulatory framework, and the second of which relates to a cost-benefit analysis.

2 An illustration of what the legislative test might provide is:

(1) The Minister may update the anchor product set to include a layer 1 GPON fibre product if the Minister, on the recommendation of the Commission, is satisfied:

(a) taking into account:

(i) the extent of any actual or likely innovation by access providers and access seekers in relation to layer 1 GPON fibre services and layer 2 fibre services, and the incentives for any such innovation;

(ii) the extent to which the introduction of a layer 1 GPON fibre anchor product may affect the market for other regulated services, including existing anchor products; and

(iii) whether the introduction of a layer 1 GPON fibre anchor product would result in the anchor product set comprising the vast majority of an access provider's regulated services (measured by either revenue or connections) such that it would effectively change the form of control to a price cap approach; and

(iv) without taking into account the extent of actual or likely demand for any layer 1 fibre service being supplied as a commercial service,

that:

(v) the introduction of a layer 1 GPON fibre anchor product would materially better promote the purpose of the new Part of the Telecommunications Act; and

(vi) the market benefits of introducing a layer 1 GPON fibre anchor product in meeting the purpose of the new Part of the Telecommunications Act materially exceed the costs of introducing such anchor product.

Elements of the legislative test

3 In this section, we provide further details of the elements of its proposed legislative test.

4 (1): GPON only: the legislative test should provide only for layer 1 services on the GPON parts of a UFB provider's fibre access network to be introduced as an anchor product. The test should not allow for the introduction of a layer 1 point-to-point (P2P) fibre product, given that:

4.1 Any uncertainty as to the market for layer 1 fibre services is limited to layer 1 GPON, as layer 1 P2P services are already available and we don't think there are issues with the market for these that would require the introduction of an anchor product.

4.2 P2P services tend to be supplied in respect of large enterprise consumers. Introducing a layer 1 P2P anchor product would have limited 'anchoring' effect on the vast majority of services supplied to consumers, given that these use the GPON parts of the network.

5 We expect that layer 1 P2P services and layer 1 GPON services will be offered as separate products with distinct product descriptions, quality measures, service levels and prices. A single layer 1 anchor product would introduce confusion and inconsistencies at the commercial, operational and technical level.

6 (1)(a)(i): Innovation: We support the proposal in the options paper that innovation, particularly at layer 2, should be taken into account when determining whether to introduce a layer 1 GPON Fibre anchor product.

7 (1)(a)(ii): Effect on other regulated services: The options paper rightly notes that the legislative test should take into account 'market conditions' – the introduction of an anchor product will, by design, have an effect on other regulated services. We expect that this mandatory consideration, when read in conjunction with the purpose-based criterion and the cost-benefit criterion, will require that that the Minister and Commission consider the potential impacts that the introduction of a layer 1 GPON fibre anchor product could have on matters such as the incentives for investment and the level of actual investment to support layer 2 services.

8 (1)(a)(iii): Proportion of regulated services: The Commission and the Minister should be required to consider whether the introduction of a layer 1 GPON fibre product would result in the anchor product set comprising the vast majority of an LFC's regulated services (measured by either revenue or connections). This is because if the anchor product set is so wide-ranging it captures all, or almost all, of an access provider's fixed line access services, then the practical effect of this would be to change the form of control from a revenue cap model (under which an access provider has flexibility in pricing individual services) to a non-weighted average price cap model (under which price caps apply to each service).

9 An over-inclusive anchor product set would undermine the Government's proposed regulatory framework in a number of ways, including by:

9.1 circumventing the intent to prescribe the form of control in legislation "to limit the degree of uncertainty that will arise from moving to a new regulatory framework";

9.2 circumventing the intent to fix the form of control for the first regulatory period, subject to our comments on this proposal in this submission;

9.3 attracting all of the advantages and disadvantages associated with price caps, as noted in section 6.2.1 of the options paper; and

9.4 effectively establishing a price cap model which could inherently be only based on per-service price caps, despite the options paper recognising that a price cap may be applied either per-service or as a weighted average.

10 (1)(a)(iv): Demand for layer 1 services: The extent of actual or likely demand for any layer 1 fibre service being supplied as a non-anchor service should be excluded as a potential consideration. The level of uptake of the layer 1 fibre product as a non-anchor service cannot, by itself, show whether it is necessary to regulate that product as an anchor product.

11 For example, it may be the case that low uptake of the layer 1 fibre product is caused by a low regulated price and quality terms for the existing layer 2 anchor product set. That is, if the price caps for the layer 2 anchor products are set too low, it should be expected that these products would be preferred over a layer 1 product and uptake of the layer 1 product would be reduced as a result. In this scenario, it would not be possible to justify price-regulation of the layer 1 fibre product on the basis of its low uptake.

12 Conversely, if there is relatively high uptake of the layer 1 GPON fibre product when offered as a non-anchor service, this would indicate that the existing price and non-price terms offered by us (subject to controls such as the revenue cap) are sufficiently attractive to access seekers to drive that high uptake. In this scenario, given the willingness of access seekers to purchase this product as a non-anchor service notwithstanding the availability of price-regulated anchor product alternatives, it would not be possible to justify price-regulation of the layer 1 GPON fibre product on the basis of its high uptake.

13 (1)(a)(v): Purpose statement: Generally speaking, a purpose statement-based test is likely to be appropriate and will capture a number of the relevant concepts that would otherwise need to be set out specifically (e.g., those relating to investment and efficiency). It will be important that the Commission and Minister consider the broader market conditions for fixed line access services in applying the test, rather than looking at layer 1 fibre services in isolation. The references to the new purpose statement and to the cost-benefit analysis are intended to capture these broader considerations.

14 The 'materially better' threshold is an existing threshold in the Commerce Act in relation to merits reviews. We propose to adopt this threshold in this test in that it can reasonably be expected that there may be a range of views as to whether the introduction of a layer 1 GPON fibre anchor product might promote the purpose of the new Part. Given the significant demands on time, cost and resources associated with the introduction of any such anchor product, as well as the potentially significant uncertainty for access providers, it is appropriate to apply a robust threshold such as 'materially better'.

15 (1)(a)(vi): Cost-benefit analysis: This test is also consistent, at a high level, with the purpose statement-based test proposed in section 7.4 of the options paper for moving from the backstop model to full price-quality regulation and change to the form of control. However, changing the anchor product set to introduce a layer 1 anchor product would be a significantly more fundamental change to the nature of the anchor product set than many other likely updates (e.g. a change in speed tiers of the anchor product). Accordingly, the legislation should set out a specified range of relevant

considerations, and that the cost-benefit exercise provided for in section 52G(1)(c) of the Commerce Act should also apply.

16 Under section 52G(2) of the Commerce Act, the cost-benefit analysis is required only if the preceding limbs of the test are satisfied. We think it would be appropriate to retain this sequencing.

The process for applying the legislative test

17 As discussed in Part D of this submission, a shift to a cost-oriented pricing approach for an anchor product would represent a significant change in policy from the BBM framework otherwise proposed for fixed line access services. In particular, the proposed requirement that prices for a layer 1 GPON fibre anchor product would be 'cost-oriented' would be a fundamental difference from the proposed pricing principles for the initial anchor product set. As a major policy decision, it is best reserved for the Minister.

18 Notwithstanding that the decision should be made by the Minister, the Commission will have an important role to play in assessing whether the criteria of the legislative test is met. We think the Commission should provide a report and recommendation to the Minister as to whether, in the Commission's view, the legislative test is satisfied. Before issuing any such report and recommendation, the Commission would need to have conducted a review or inquiry involving appropriate consultation with interested persons.

19 As per Part D of this submission, if anchor products are set by regulatory determination, any product substituted into the anchor product set should already be supplied as a non-anchor service. That is, the anchor product set update process should not be able to define, or mandate the creation of, an entirely new product. This rule should similarly apply to any layer 1 GPON fibre anchor product. It is proposed that our obligation to offer a layer 1 GPON fibre product under the fibre open access deed of undertaking will take effect from 1 January 2020. The development of this product will require substantial investment and it would not be appropriate for the anchor product set to be updated to require the development of an entirely new, or materially different, layer 1 GPON fibre anchor product.

20 We think that a stand-down period should apply to the application of this legislative test. Given the significance and complexity associated with any review or decision-making process for a potential introduction of a layer 1 GPON fibre anchor product, the process is likely to involve a material allocation of time, cost and resource. It is also likely to lead to significant uncertainty for access providers. Barring exceptional circumstances, if the Commission has recommended against, or the Minister has decided against, introducing a layer 1 GPON fibre anchor product then the Commission should be precluded from commencing a subsequent review for a length of time. The duration of this stand-down could be the longer of two years or the remainder of the then-current regulatory period.